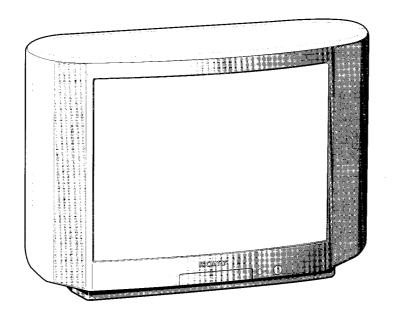
# **SERVICE MANUAL**

# AE-4 CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-29C3A	RM-862	Italian	SCC-K43A-A	KV-29C3E	RM-862	Spanish	SCC-K42A-A
KV-29C3B	RM-862	French	SCC-K45A-A	KV-29C3K	RM-862	OIRT	SCC-K44A-A
KV-29C3D	RM-862	AEP	SCC-K41A-A	KV-29C3R	RM-862	OIRT .	SCC-K44B-A









ITEM MODEL	Television System	Channel Coverage	Colour System
Italian	B/G/H, D/K	B/G/H VHF: E2-E12 UHF: S1-S20 CABLE TV (1): S1-S41 CABLE TV (2): S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 D/K VHF: R01-R12 UHF: R21-R69 CABLE TV VHF: S1-S41, UHF: S01-S05	PAL, SECAM NTSC3.58/4.43 (video input only)
French	B/G/H, D/K, L, I	L SECAM VHF: F2-F10 UHF: F21-F69 TV CABLE TV (1) VHF: B-Q UHF: S21-S44 PAL B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1): S1-S41 CABLE TV (2): S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 PAL I UHF: B21-B69 D/K VHF: R01-R12 UHF: R21-R69 CABLE TV VHF: S1-S41, UHF: S01-S05	PAL, SECAM NTSC3.58/4.43 (video input only)
AEP	B/G/H, D/K	B/G/H VHF: E2-E12 UHF: S1-S20 CABLE TV (1): S1-S41 CABLE TV (2): S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 D/K VHF: R01-R12 UHF: R21-R69 CABLE TV VHF: S1-S41, UHF: S01-S05	PAL, SECAM NTSC3.58/4.43 (video input only)
Spanish	B/G/H, D/K	PAL B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1): S1-S41 CABLE TV (2): S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 D/K VHF: R01-R12 UHF: R21-R69 CABLE TV VHF: S1-S41, UHF: S01-S05	PAL, PSECAM NTSC3.58/4.43 (video input only)
OIRT	B/G, D/K	B/G/H VHF: E2-E12 UHF: S1-S20 CABLE TV (1): S1-S41 CABLE TV (2): S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 D/K VHF: R01-R12 UHF: R21-R69 CABLE TV VHF: S1-S41, UHF: S01-S05	PAL, SECAM NTSC3.58/4.43 (video input only)

MODEL	29C3A	29C3B	29C3D	29C3E	29C3K	29C3R
Power Consumption	110W	127W	127W	127W	127W	127W

## **SPECIFICATIONS**

Picture Tube

Super Trinitron

Approx. 72 cm (29 inches) (Approx. 68 cm picture measured

diagonally) 110° deflection

## [FRONT]

3 Video input - phono jack

€ 3 Audio inputs - phono jacks ─S 3 S video input - 4 pin DIN

Headphones jack: stereo minijack

## **Rear/Front Terminals**

## [REAR]

21-pin Euro connector (CENELEC standard)

Inputs for RGB

Outputs of TV video and audio signals

Inputs for audio and video signals

→ 2/ → 2 21-pin Euro connector

Inputs for audio and video signals

Inputs for S video

Outputs for audio and video signals (selectable)

2x30W (music power), 2x15W (RMS)

Sound output Dimensions 794x567x530 mm approx.

Weight Approx. 44.5 kg

Supplied accessories Remote Commander RM-862 (1)

> Batteries R6 (2) Aerial cable (1)

Other features

FASTEXT, 100Hz Digital Plus, PIP, NICAM stereo (KV-29C3B only)

[RM-862]

Remote control system I

Infrared control

Power requirements

3V dc (2 batteries) R6 (size AA)

Dimensions

Approx. 210x56x24 mm (w/h/d)

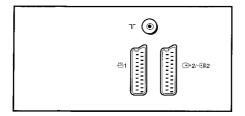
Weight Approx. 110g

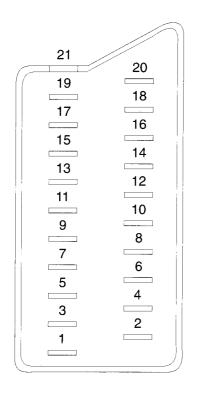
(Not including battery)

# Design and specifications are subject to change without notice.

Model name	KV-29C3A	KV-29C3B	KV-29C3D	KV-29C3E	KV-29C3K	KV-29C3R
Item						
PIP	ON	ON	ON	ON	ON	ON
MPIP	ON	ON	ON	ON	ON	ON
Rotation Coil	ON	ON	ON	ON	ON	ON
VM Set (Velocity Modulation)	ON	ON	ON	ON	ON	ON
Scart 1	ON	ON	ON	ON	ON	ON
Scart 2	ON	ON	ON,	ON	ON	ON
Front in (3)	ON	ON	ON	ON	ON	ON
AKB in 16:9 mode	ON	ON	ON	ON	ON	ON
TXT	ON	ON	ON	ON	ON	ON
FLOF	ON	ON	ON	ON	ON	ON
TOP	ON	ON	ON	ON	ON	ON
Norm B/G/H	ON	ON	ON	ON	ON	ON
Norm I	OFF	ON	OFF	OFF	OFF	OFF
Norm D/K	'OFF	ON	ON	ON	ON	ON
Norm L	OFF	ON	OFF	OFF	OFF	OFF
Language Preset	Italian	French	German	Spanish	Spanish	Spanish

## 21 pin connector (ゼ1, ↔2/ ↔92)





Pin No.	1	2	4	Signal	Signal Level
1	0	0	0	Audio output B (Right)	Standard level : 0.5V rms Output impedance : Less than 1k ohms*
2	0	0	0	Audio input B (Right)	Standard level : 0.5V rms Output impedance : More than 10k ohms*
3	0	0	0	Audio output A (Left)	Standard level : 0.5V rms Output impedance : Less than 1k ohm*
4	0	0	0	Ground (Audio)	
5	0	0	0	Ground (Blue)	
6	0	0	0	Audio input A (Left)	Standard level : 0.5V rms Output impedance : Less than 10k ohm*
7	0	•	•	Blue input	$0.7 \pm 3 dB$ , 75 ohms, positive
8	0	0	0	Function select (AV control)	High state (9.5 - 12V) : Part mode Low state (0 - 2V) : TV mode Input impedance : More10k ohms Input capacitance : Less than 2nF
9	0	0	0	Ground (Green)	
10	0	0	0	Open	
11	0	•	•	Green	
12	0	0	0	Open	
13	0	0	0	Ground (Red)	
14	0	0	0	Ground (Blanking)	
	0	_	-	Red input	$0.7\pm3$ dB, 75 ohms, positive
15	-	0	0	(S signal) croma input	0.7 ± 3dB, 75 ohms, positive
16	0	•	•	Blanking input (Ys signal)	High state (1 - 3V) Low state (0 - 0.4V) Input impedance : 75 ohms
17	0	0	0	Ground (Video output)	
18	0	0	0	Ground (Video input)	
19	0	0	0	Video output	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
20	0	_	_	Video input	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
20	_	0	0	Video input Y (S signal)	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
21	0	0	0	Common ground (plug, sheild)	

	•				
O Con	nected	•	Not Connected (Open)	*	at 20Hz - 20kHz

Pin No.	Signal	Signal Level
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3dB 75 ohm, positive Sync. 0.3V -3 + 10dB
4	C (S signal) input	0.3V ± 3dB 75ohm, positive Sync.

|--|

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### CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

#### WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.

THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!
COMPONENTS IDENTIFIED BY SHADING AND MARK A ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND, IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

#### ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

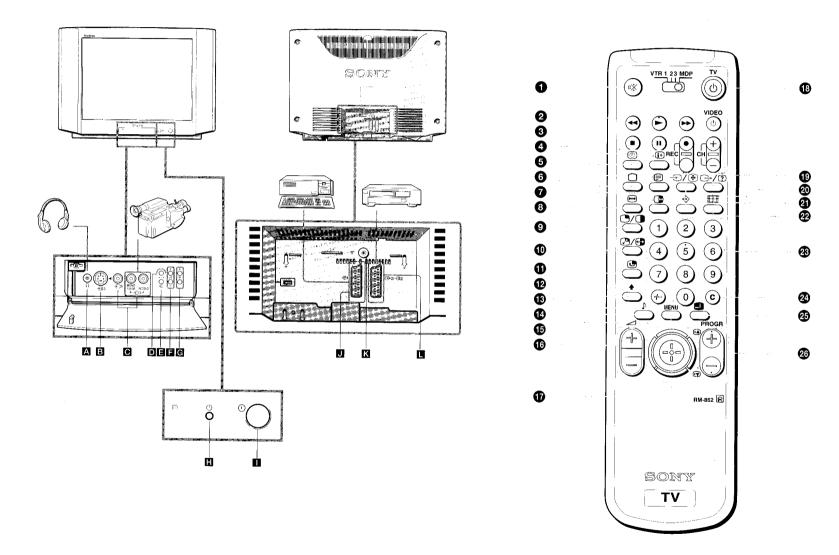
## ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÁSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

## ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE \(\frac{1}{2}\) SUR LES VUES EXPLOSÉES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE PUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

The operating instructions mentioned here are partial abstracts from the Operating Instructions Manual. The page numbers of the Operating Instruction Manual remain as in the manual.



0

## Overview

This section briefly describes the buttons and controls on the TV set and on the Remote Commander. Please open the flaps at the front and at the back of the Instruction Manual for detailed illustrations of the Remote Commander and the TV set. Letters in boxes refer to the buttons and connectors on the TV set, numbers in circles to the buttons on the Remote Commander. For more information, refer to the pages given next to each description.

## TV set – front

Ref	erence and Symbol	Name	Refer to page
Α	ດ	Headphones jack	35
В		S video input jack	40
С	⊕ 3, ⊕ 3	Input jacks (video, audio)	40
D	<b>→•</b> ←	Reset button	28
Ξ	€	Input mode button	28
B	⊿+/-	Volume control	28
G	P +/-	Programme buttons	28
H	<b>ம</b>	Standby mode indicator	28
П	①	Main power switch	28

## TV set - rear

Ref	erence and Symbol	Name	Refer to page		
J	<del>ව</del> ්1	21-pin Euro connector	40		
K	٦٢	Aerial socket	26		
L	<b>⊕2/</b> - <b>3</b> 2	21-pin Euro connector	40		

## **Remote Commander**

	Reference and Symbol	Name	Refer to page	
	<b>3</b> ⋴×̈́	Muting on/off button	28	
	0	VCR operation	41	
	VTR 123 MDP	Video equipment selector	41	
	<b>↔►₩</b> ■Ⅱ●	Video equipment operation buttons	41	
	VIDEO (¹), CH +/-			
	3 ⊕	On-screen display button	28	
	<b>4 9</b>	Time display button	28	
i.i	<b>⑤ ◎</b>	Teletext button	28, 37	
	6 🔾	TV power on/TV mode button	28	
	0 0	No function on this set		
	8 ⊞	Freeze button	28	
	<b>9 ()</b> / <b>()</b>	PIP on/off button	36	
L	<b>0 2</b> / <b>3</b>	PIP Swap button	36	
	<b>0</b> 🕒	PIP position button	36	
71	<b>⊕</b> †	PIP source selector	36	
<del> </del>	<b>®</b> -/	Double digit entering button	28	
7	<b>@</b> 1	Sound mode button	34	
_	<b>6</b> MENU	Menu on/off button	29	
	<b>⑥</b> ⊿+/-	Volume control buttons	28	
•	<b>o</b>	Joystick for Menu selection	29	
* °O		Press to confirm selection (OK function	1)	
	<b>®</b> TV Ů	TV standby button	28	
ė ė	<b>0</b> 🕒	Output mode selector	40	
		Teletext: Reveal button	37	
	<b>0</b> -3	Input mode selector	28	
		Teletext: Freezing the subpage	37	
A SECTO	<b>②</b> ◆	Teletext: Favourite pages button	39	
Fr. (BORTON)	<b>②</b> ₩	No function on this set		
274945 1447 / 504911	<b>3</b> 1, 2, 9, 0	Number buttons	28	
1771 - 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<b>②</b> C	Direct channel entering button	28	
	<b>4</b> ●	Picture mode button	34	
		Programme buttons	28	
	<b>:</b> ▲ <b>:</b> ▼	Teletext: Page up/page down buttons	37	



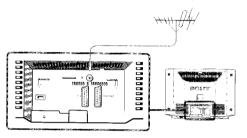
## **Basic Operation**

## **Step 1 Installation**

## A Connecting the Aerial

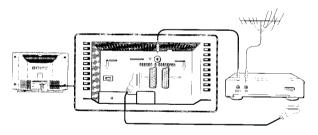
(If you connect a VCR, skip to step B)

Insert the aerial plug of the supplied aerial cable tightly into the aerial socket TK



## B) Connecting at VCR

We recommend that you tune in the VCR signal to the programme position »0« Use the preset function »Manual Programme Preset« (page 29) to do this.



### C Inserting the batteries into the Remote Commander

Insert the batteries checking the correct polarities.



Respect your environment! Dispose of used batteries in an evironmental friendly

## **Step 2 Basic Presetting**

## Country

Using this function you select the language of the menu screens. Also you select the country in which you will use the TV. In this way the channels of the selected country will automatically get the top positions during automatic presetting

- 1 Press the power switch ① 🚺 on the TV. If the standby indicator 🖰 🖬 on the TV is lit, press 🔾 6 or a number button 🚳 on the Remote Commander. Press the MENU button 6 on the Remote Commander. The menu LANGUAGE appears.
- $2\,\text{Push}$  the joystick  ${\bf 0}$  to blue or green to select the language. Press the joystick  ${\bf 0}$  to confirm your selection. The menu COUNTRY appears.
- 3 Push the joystick  $\boldsymbol{\Theta}$  to blue or green to select the country in which you wish to operate the TV. Press the joystick To to confirm the selection.
- 4 Press MENU 66 to restore the normal TV picture.





## Presetting Channels Automatically

With this function the TV automatically searches and stores up to 100 channels onto programme positions. If you prefer »Manual Presetting of channels« please refer to page 29 in Advanced Operation.

- 1 Press MENU (6).
- 2 Push the joystick  ${\bf 0}$  to blue or green to select the symbol  $\stackrel{\square}{r}$  on the menu screen, then push to yellow.
- yellow. The menu AUTO PROGRAMME appears.
- 4 a) All items shown on the menu screen are as wanted: Press joystick  $\boldsymbol{\varpi}$  to select START. Now the automatic channel presetting starts from programme position 1.
- 4 b) You wish to change items as shown on the menu screen: Push the joystick 10 to blue or green. Push to yellow repeatedly until the desired item is highlighted.

Push the joystick **10** to blue or green to select the following possibilities:

(Automatic Channel Installation, depending on availability of service in your country) on: fast channel presetting by special networks using the channel frequency (e.g. F055) TV-system and station label

off: ACI is not active, only ITP (Intelligent Tuner Preset)

SYS (TV Broadcast System) B/G for Western European Countries D/K for Eastern European Countries

PROG (Programme Position) Presetting automatically starts from position 1

#### CH (channel)

C to start presetting with terrestrial channels S to start presetting with cable channels

Press the joystick **1** as soon as the automatic presetting should start.

5 After presetting the normal TV picture reappears.





#### Joystick



27

## Using Direct Access Buttons

This section explains functions used while watching TV. Most operations are carried out using the Remote Commander (numbers in circles). All basic functions are also available on the TV set itself (letters in boxes).

То	Press
Switch on	• ① <b>1</b> on TV.
Switch off temporarily (Standby mode)	• ⊕ <b>⑤</b> . TV is now in standby mode and indicator ⊕ <b>∏</b> lights up.
Switch on from standby mode	• 🗇 <b>6</b> , PROGR +/- 🍪 <b>G</b> or any number button <b>2</b> 9.
Switch off completely	①
Select programmes	• PROGR +/-
Display a programme table	<ul> <li>The joystick ①.     Push the joystick ① to blue or green to select a programme, then press the joystick ② to confirm.</li> </ul>
Display on screen indications	<ul> <li>Press again to make the indications disappear.</li> </ul>
Adjust the volume	• 🖊 + or - 🎁 🖪.
Mute the sound	• 🕸 🕦. Press again to restore the sound.
Display the time (only available when teletext is broadcast)	
Tune in a channel temporarily	• »C« ② once for terrestrial channels, twice for cable channels. The indication »C« or »S« for cable channels appears. Enter the channel number with two digits, e.g. for 4, press 0, then 4.
View the input of a connected device (see also page 40)	• ① 🕲 🖪 repeatedly until the desired input signal appears. Press 🔾 ᠪ to restore the normal TV picture.
View teletext (see also page 37)	<ul> <li></li></ul>
Freeze the picture	• 🗃 🔞. Press again to restore the normal TV picture.
Reset picture settings to factory levels	• ->• D.

# Advanced Operation

## **Using the Menu System**

Use the following buttons on the Remote Commander to operate the Menu system:

1 Press MENU button (6) to switch menu on or off.

RED:

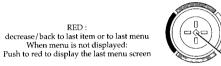
When menu is not displayed:



2 Use the joystick **1** as follows:



GREEN: scroll up



YELLOW: increase/forward to next item

BLUE: scroll down

Joystick: Press at its neutral position to confirm selection or store

#### PROGRAMME TABLE





SONT

ΤV

## **Advanced Presetting**

## Presetting Channels Manually

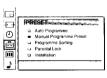
Using this function you can preset channels one by one to different programme positions. It is also convenient to allocate programme numbers to video input SOUTCES

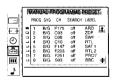
- 1 Press MENU 1.
- 2 Push joystick 🛈 to blue or green to select the symbol 🛱 on the menu screen. Push to yellow to confirm the selection.
- 3 Push to blue or green to select »Manual Programme Preset«. Push to yellow to confirm the selection.
- 4 Push to blue or green to select the programme position (PROG) to which you want to preset a channel. Push to yellow to confirm.
- 5 Push to blue or green to select the TV broadcast system (SYS) (B/G for western European countries, D/K for eastern European countries) or a video input source (EXT). Push to yellow to confirm.
- 6 Push to blue or green to select »C« (for terrestrial channels), »S« (for cable channels) or »F« (for channel frequency). Push to yellow to confirm.

#### There are two possibilities to preset channels manually:

a) You know the channel number or channel frequency. Please use method »Direct input«.

b) You don't know the channel number or frequency. Please use method »Search«.





continued >>>>>>>

#### Advanced Presetting

#### 7a) Direct Input

For channel numbers you need to input a two digit number, for the frequency a three digit number.

- Push to blue or green to select the first digit of the channel number or frequency. Push to vellow to confirm.
- Push to blue or green to select the second digit of the number or frequency. Push to yellow to confirm. In case of the channel number the search starts.
- Push to blue or green to select the third digit of the frequency number. Push to yellow to start the search of the frequency.
- To continue search for another channel: Push to blue or green.
- To store the selected channel: Press the joystick **10**.
- · Repeat steps 4 to 7a) to preset other channels.

#### 7b) Search

- Push repeatedly to yellow until a blue and a green arrow appear in the section SEARCH.
- · Push to blue or green to search for the next available channel
- · To continue search for another channel: Push to blue or green.
- To store the selected channel: Press the joystick 10.
- · Repeat steps 4 to 7b) to preset other channels

## Captioning a Station Name

Channels are usually automatically labelled during presetting. You can, however, individually name a channel or a video source using up to five characters.

#### 1 Press MENU 6

- 2 Push joystick **10** to blue or green to select the symbol **2** on the menu screen. Push to yellow to confirm.
- 3 Push to blue or green to select »Manual Programme Preset«. Push to yellow to
- 4 Push to blue or green to select the programme position with the channel you want to label. Push to yellow repeatedly until the first element of the position LABEL is
- 5 Push to blue or green to select a letter or a number (select »-« for a blank). Push to yellow to confirm. Select the other four characters in the same way.
- 6 After selecting all characters, press the joystick 10
- 7 Repeat steps 4 to 6 to label other channels or video sources
- 8 Press MENU 1 to restore the normal TV picture.

#### Advanced Presetting

## Skipping Programme Positions

This function enables you to skip unused programme positions when selecting them with the PROGR +/- buttons. However, by using the number buttons you can still select the skipped programme position.

1 Press MENU 6.

Joystick

MANUAL PROGRAMME PRESET.

PROG SYS CH SEARCH LABIL

- 2 Push joystick **10** to blue or green to select the symbol **2** on the menu screen. Push to yellow to confirm.
- 3 Push to blue or green to select »Manual Programme Preset«. Push to yellow to
- 4 Push to blue or green to select the programme position you want to skip. Push to vellow to confirm.
- 5 Push to blue or green to select »---« in the position SYS (system). Press the joystick to confirm.
- 6 Repeat steps 4 and 5 to skip other programme positions.
- 7 Press MENU 6 to restore the normal TV picture.

## ⇒ Enstallation J MANUAL PROGRAMME PRESET

PRESET A F P

□ Programme Sorting
 □ Parental Lock

■ Auto Programme

→ Manual Programme Prese

Joystick

# PROG SVS CH SEARCH LABEL

## Sorting Programme Positions

This function enables you to sort the programme positions to a preferable order.

#### 1 Press MENU 6

- 2 Push joystick 🛈 to blue or green to select the symbol 🖻 on the menu screen. Push to yellow to confirm.
- 3 Push to blue or green to select »Programme Sorting«. Push to yellow to confirm.
- 4 Push to blue or green to select the programme position of the channel you want to exchange. Press joystick 10 to confirm.
- 5 Push to blue or green to select the programme position of the second channel. Press joystick to confirm. Now the two programme positions are swapped and sorted.
- 6 Repeat steps 4 and 5 to sort other programme positions.
- 7 Press Menu 6 to restore the normal TV picture.

## Using Parental Lock

This function enables you to prevent children watching undesirable broadcasts.

- 1 Press MENU 1.
- 2 Push joystick **10** to blue or green to select the symbol 💆 on the menu screen. Push to yellow to confirm.
- 3 Push to green or blue to select »Parental Lock«. Push to yellow to confirm.
- 4 Push to green or blue to select the channel you want to block. Press the joystick 10 to confirm. The symbol **fi** appears before the programme position to indicate that this channel is now blocked
- 5 Repeat step 4 to block other channels.
- 6 Press MENU (6) to restore the normal TV picture.

To unblock: Select the channel to unblock in the menu »Parental Lock«. Press the joystick ①. The symbol ② disappears.

THE STATE OF	PROG	CH	LABEL	
_/  °L	1	F 175	ARD	
30	3	C 20	ZDF	
'!! 이	3	C 08	SWF	
	4	C 19	RTL	
11 11	5	S 10	SAT	
마	6	S 01		
u .	7	F 224		
1 -1	8	S 03		
II M	love PR	4 to PR -		



## Using »Further Programme Preset«

Using the menu »Further Programme Preset« you can

- a) individually adjust and store the volume level of each channel (Volume offset).
- b) in case of picture distortions use manual fine tuning to obtain a better picture quality. The factory setting is »on« for AFT (Automatic Fine Tuning).

#### 1 Press MENU 🤀

- 3 Push to blue or green to select »Installation«. Push to vellow to confirm
- 4 Push to blue or green to select »Further Programme Preset«. Push to yellow to confirm.
- 5 Push to blue or green to select the programme position you want. Push to yellow repeatedly to select:
- a) VOL (Volume Offset) or b) AFT (Automatic Fine Tuning). The selected item changes colour.

#### 6a) VOL

Push to blue or green to adjust the volume for the selected programme position within a range of -7 to +7. Press the joystick 0 to confirm. Repeat step 6 to set the volume level for other programme positions.

#### b) AFT

Push to blue or green to fine-tune the channel within a range of -15 to +15. Press the joystick **1** to confirm. Repeat step 6 to fine-tune other channels.

7 Press MENU 6 to restore the normal TV picture.

#### Joystick





RTHER	HOGRAM	AE PRESE	Ī.
PRUG	VOL	AFT	
1	0	on	+
2	0	on	
	0	on	
4	0	on	
5	0	on	
6	0	on	
7	0	on	
8	0	on	
		PRUG VOL  1 0 2 0 3 0	1 0 on 2 0 on 3 0 on 4 0 on 5 0 on 6 0 on

#### **Advanced Presetting**

## Adjusting the Picture Rotation

If, due to the earth magnetism, the picture slants, you can use this function to readjust the picture.

- 1 Press MENU 6.
- 2 Push joystick **⊕** to blue or green to select the symbol <del>□</del> on the menu screen. Push to yellow to confirm.
- 3 Push to blue or green to select »Installation«. Push to yellow to confirm.
- 4 Push to blue or green to select »Picture Rotation«. Push to yellow to confirm.
- **5** Push to yellow. Push to blue or green to adjust the picture rotation. The adjusting range is 4 to + 4. Press the joystick **1** to confirm.
- 6 Press MENU 16 to restore the normal TV picture.

#### Joystick:





## Using »AV Preset«

Using this function you can preset the desired input source (e.g. 21, RGB signal) to the respective AV input (AVI). In this way a connected VCR switches automatically to the RGB signal. Also you can label the input sources.

- Press MENU 6.
- 2 Push joystick \*\textbf{0}\$ to blue or green to select the symbol \*\overline{\over
- 3 Push to blue or green to select »Installation«. Push to yellow. Push to blue or green to select »AV Preset«. Push to yellow to confirm.
- 4 Push to blue or green to select the desired AV input. Push to yellow to confirm.
- 5 Push to blue or green to select the desired source. Push to yellow to confirm. For the respective AV inputs you have the following choice: AVI: RGB or AV

AV2: YC2 or AV AV3: YC3 or AV

- 6 To label a source: Push to blue or green to select the first character (letter or number, »-« for a blank). Push to yellow to confirm. Select the other four characters in the same way.
- 7 Press the joystick To to store.
- 8 Repeat steps 4 to 7 for the other AV inputs.
- 9 For RGB input source only: Push to blue or green to select RGB H Centre.
  - · Push to yellow to confirm.
  - Push to blue or green to adjust the centre of the picture in a range of -5 to +5.
     Press the joystick 10 to store.
  - · Repeat step 9 to adjust RGB H Size.
- 10 Press MENU 6 to restore the normal TV picture.

## **Advanced TV operation**

## Adjusting the Picture and Sound

Although the picture and sound are adjusted at the factory, you can adjust them to suit your own taste.

1 Press 
(for Picture) or (for Sound)

or Press MENU **6**6.

Push joystick  $\bullet$  to blue or green to select  $\blacksquare$  for Picture Control or  $\flat$  for Sound Control. Push to yellow to confirm. The menu PICTURE CONTROL or SOUND CONTROL appears.

- 2 Push to blue or green to select the desired item. Push to yellow to confirm.
- 3 Push to red or yellow to adjust the selected item. Press the joystick 10 to confirm. For the effect of each control, see the following tables.
- 4 Repeat steps 2 and 3 to adjust other items.
- 5 Press MENU 6 to restore the normal TV picture.

#### Picture Control

Item	Effect	
Picture Mode	<ul> <li>Personal → Economy (energy saving setting) →</li> </ul>	
	Live $\longrightarrow$ Sports $\longrightarrow$ Movie $\longrightarrow$ Game	
Contrast	• Less ——— More	
Brightness*	• Darker ——— Brighter	
Colour*	• Less ——— More	
Hue**	• Greenish ———— Reddish	
Sharpness*	• Softer ——   Sharper	
Reset	Resets picture to the factory preset levels	
Lumisponder	Off: Normal     On: Automatic optimization of picture level according to the surrounding lighting level	
Screen Mode	• Auto (automatic selection of 16:9 broadcasts decoded in 4:3) → 4:3→ 16:9	
Noise Reduction	Off: Normal     On: Reduction of picture noise in case of weak signals	

<sup>\*</sup> Only if »Personal« or »Economy« is selected in »Picture Mode«.

#### Advanced TV operation

#### **Sound Control**

Joystick

Item	Effect	
Sound Mode	<ul> <li>Choice between different sound effects</li> <li>User → Pop → Jazz → Rock</li> </ul>	
Treble*	• Less —— I —— More	
Bass*	• Less ——— More	
Balance	More left	
Loudness*	Off: normal On: for music broadcasts	
Space	Off: normal On: special acoustic effect	
Dual Sound	• A: channel 1 or B: channel 2 Stereo → Mono	
Headphones		
⊖ Volume	• Less ———  ——— More	
∩ Dual Sound	<ul> <li>A: channel 1 or B: channel 2 → PIP (if PIP is switched on, you can select the PIP sound for the headphones)</li> <li>→ Stereo → Mono</li> </ul>	

<sup>\*</sup> Only if »User« is selected in »Sound Mode«

#### Joystick





## Using the Sleep Timer

This function enables you to select a time period after which the TV automatically switches into standby mode.

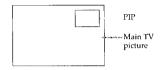
- 1 Press MENU (B.
- **2** Push joystick **1** to blue or green to select the symbol **2** on the menu screen. Push to yellow to confirm.
- 3 Push to yellow. Push to blue or green to select the time. OFF → 10 min → 20 min .......80 min → 90 min. Press the joystick **①** to confirm.
- 4 Press MENU (6) to restore the normal TV picture.
- One minute before the TV switches into standby mode, a message is displayed on the screen.



<sup>\*\*</sup> Available for NTSC colour system only.

## PIP (Picture-in-Picture)

With this function you can display a »PIP screen« (small picture) within the main TV picture. In this way you can watch or monitor the video output from any connected equipment (for example from a VTR) while watching TV or vice versa.



#### Switching PIP on and off

Press 🖰/🕕 🥝.

The PIP screen will be displayed. The PIP picture comes from the source chosen when the TV was last used.

To switch PIP off
Press ( ) ( ) 9 again.

or

1 Press MENU 6.

- 2 Push joystick **②** to blue or green to select the symbol □ on the menu screen. Push to yellow to confirm.
- 3 Push to yellow. Push to blue or green to select »On« or »Off«. Press joystick **⊕** to confirm.
- 4 To change the PIP Position:

Push to blue or green to select »PIP Position«. Push to yellow. Push to blue, green, red or yellow to select one of the four positions. Press joystick **10** to confirm.

5 Press MENU 6 to restore the normal TV picture.

#### Changing the position of the PIP

Press 🖲 🕦 repeatedly to change the position of the PIP screen within the main screen. There are four different positions available.



#### Selecting a PIP source

Press † 10.

The symbol † 

will be displayed at the bottom, left-hand corner of the screen. Press 

note that the desired source is indicated (e.g. TV, AV1, AV2, YC2, AV3, YC3, AV4, YC41).

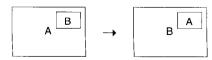
#### Tips

- If no video source has been connected, the PIP picture will be noisy.
- A RGB input source cannot be displayed in PIP.

#### Swapping screens

Press (2)/ 0.

The main screen will switch the picture with the PIP screen.



If the PIP screen shows a TV programme and the main picture a video source, and o you want to change channels, first press † ② and then the programme buttons ③ or PROGR +/- ⑥.

## **Teletext**

Most TV channels broadcast information via teletext. The index page of the broadcaster (usually page 100) informs you about how to use the service. Make sure to use a TV channel with a strong signal, otherwise Teletext errors may occur.

## Direct Access Function

#### Switching Teletext on and off

- 1 Select the TV channel which carries the teletext service you want to view.
- 2 Press 🗐 6 once to switch Teletext on.

Press **6** twice for Mix mode. The normal TV screen and the Teletext screen are overlapped.

3 Press O 6 to switch Teletext off.

#### Selecting a Teletext page

**Direct Page Selection** 

Use the number buttons ② to input three digits of the page number. If you have made a mistake: Type in any three digits, then reenter the correct page number.

#### Page Catching

**Joystick** 

0

**2** 

■ PIP [ on ]

⇒ PIP Position

1 Select a teletext page with page numbers (e.g. index page).

2 Press the joystick **①**. »Page Catching« is displayed at the top of the page. Push joystick **Û** to blue or green to select the page you want. Press the joystick **Û** The requested page is displayed after some seconds. Press **② O** to resume normal teletext reception.

### Accessing the next or preceding page

Press (A) (Page +) or (Page -).

#### Freezing a teletext subpage

Press ② ②. The symbol ③ is displayed.

Press ⑤ 5 to resume normal teletext reception.

#### Revealing hidden information (e.g. for a quiz)

Press 

O

Press again to cancel.

#### Using Fastext

(only available, if the TV station broadcasts Fastext signals)

With Fastext you can access pages with one key stroke. When Fastext is broadcast, a colour-coded menu appears at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue marks on the Remote Commander. Push the joystick  $\Phi$  to the colour mark which corresponds to the colour-coded menu. The page is displayed after some seconds.

Joystick



continued >>>>>>>>

3

#### Teletext

## Using the Teletext Menu

Your TV is provided with a menu-guided teletext system. When teletext is switched on, you can use the buttons for menu operation to operate the teletext menu. Select the teletext menu functions as follows:

1 Press MENU 6. The menu is superimposed on the teletext display.

2 Push the joystick **1** to blue or green to select the teletext function you want. Push to yellow to confirm the selection.

#### **USER PAGES/PRESET USER PAGES**

See page 39 for information about presetting and operating the user pages.

The index gives you an overview of the contents of the teletext you are using.

#### TOP/BOTTOM/FULL

For convenient reading of a teletext page you can enlarge the teletext page. After selecting the function, an information line »F Top G Bottom OK Full« is displayed. Push joystick 10 to green to enlarge the upper half, push to blue to enlarge the lower half. Press the joystick to resume the normal display. Press 🖹 6 to resume normal teletext reception

#### TEXT CLEAR

After selecting the function, you can watch a TV programme while waiting for a requested teletext page to be captured. When the page is available, the symbol 🗐 changes colour. Press ( 5 to view the requested page.

#### SUBTITLES

Check with your teletext service for information about subtitled TV programmes. After selecting the function the subtitles are displayed.

Check with your teletext service about the availability of time coded pages. If available, you can call up a page (e.g. an alarm page) at a certain time.

- 1 Select TIME PAGE in the teletext menu. Push joystick 10 to yellow. An information window is displayed. Push to blue or green to select »On«. Push to yellow.
- 2 Use the number buttons ② to enter the three digits of the page you want (e.g. 301). Push to yellow after each digit.
- 3 Use the number buttons ② to enter the four digits of the desired time (e.g 18-54). Push to yellow after each digit. Press joystick to confirm. Press MENU 19. The time is displayed in the top left-hand corner of the screen. At the requested time the page is displayed.

#### SUBPAGE

Using this function you can select a particular teletext page from several subpages (e.g. page 2 of 6 pages in total). After selecting the function an information line is displayed. Use the number buttons @ to enter the four digits (e.g. enter 0002 for the second page of a sequence).

To cancel the request: Push joystick **1** to red and then to yellow.

#### **Jovstick**



TELETEXT MENU

Top | Bottom OK Full

## User Page Bank System

You can store up to 6 of your favourite teletext pages per Teletext service. In this way you have quick access to the pages you frequently use.

#### Storing pages

Teletext

- User Pages
  Index
  Top/Bottom/Full
  Text Clear
  Subitles
  Time Page
  Subpage
  Preset User Pages 1 Press 🖹 \delta to switch Teletext on. Press MENU 🚯.
  - 2 Push joystick 10 to blue or green to select »Preset User Pages«. Push to yellow to confirm.
  - 3 Push to blue or green to select the bank (from A to E) you want. Push to vellow to confirm.
  - 4 Push to blue or green to select the three digits of your first favourite page. Push to yellow after each digit. Push to yellow to confirm.
  - 5 Repeat step 4 for the other 5 favourite pages. If you do not want to preset all 6 page numbers push to yellow without inserting any number. After finishing the presetting, press the joystick 10.
  - 6 Push to blue or green to select »Allocate Bank«. Push to yellow to confirm.
  - 7 Push to blue or green to select the programme position of the channel which carries the teletext service for which you have selected your favourite pages. Push to yellow to confirm.
  - 8 Push to blue or green to select the bank from step 3. Press the joystick  ${\bf 0}$  to confirm.
  - 9 Repeat steps 3 to 8 for the other 4 banks available.

#### Displaying User Pages

1 Press MENU (B)

- 2 Push joystick 🌒 to blue or green to select »User Pages«. Push to yellow to confirm.
- 3 Push to blue or green to select the page you want. Press the joystick 10. The page is displayed after some seconds.

- 1 Press 💠 🚳
- 2 Push joystick **1** to blue or green to select the page you want. Press the joystick **1** The page is displayed after some seconds.

#### **Joystick**





#### USER PAGES BANK B

- PAGE 360
  □ PAGE 200
  □ PAGE 203
  □ PAGE 500
  □ PAGE 234
  □ PAGE 159

## **Optional Equipment**

## **Connecting Optional Equipment**

You can connect a wide range of optional equipment to your TV. Refer to the illustrations on the back lap page of this Instruction Manual.

Symbol	Acceptable input signals	Available output signals
<del>'</del> Ö1	Normal audio/video and RGB	Audio/video from TV tuner
⊕2/-32	Normal audio/video and S video	Audio/video from selected source
<b>⊕3, ⊕3</b>	Normal audio/video and S video	No output

#### About S video input

Video signals may be separated into Y (luminance) and C (chrominance) signals. Separating the two signals prevents interference and thus improves the picture quality.

#### Tips:

- If the picture or sound is distorted, move the VCR away from the TV.
- When connecting a monaural VCR, connect only the white jack to both the TV and VCR.

## Selecting Input and Output Signals

#### a) Direct Access Buttons

#### Selecting the Input

Press Đ 🚳 🖪 repeatedly to select one of the following input modes:

Symbol on the screen	Input signals	
<b>⊕</b> 1	Audio/video through Euro AV connector	J
Ö	RGB through Euro AV connector	J
<b>⊕</b> 2	Audio/video through Euro AV connector	L
<del>-</del> 32	S video through Euro AV connector	
<b>⊕</b> 3	Audio/video through the phono jacks	С
-33	S video through the 4 pin DIN	В

Press 

6 to restore the normal TV picture.

#### Selecting the Output from Euro AV connector ⊕2/- 2 ■

Symbol on the screen	ymbol on the screen	
1 🕒	Audio/video from Euro AV connector	J
2 🕞	Audio/video from Euro AV connector	
2 ⑤→	Audio/video from Euro AV connector	L
3 ᠿ	Audio/video from the phono jacks	C
3 ⑤→	Audio/video from the 4 pin DIN	В
TV	Audio/video from the aerial terminal T	K

#### **Optional Equipment**

#### b) Using the Menu »Video Connection«

- 1 Press MENU 45.
- 2 Push joystick **1** to blue or green to select the symbol d♯ on the menu screen. Push to yellow to confirm.
- 3 Push to blue or green to select »TV screen« (input source for TV-screen), PIP (source for PIP screen), or »Output« (output source for ③ 21-⑤ 21 ) Push to yellow to confirm.

You can select between the following sources:

• TV: TV-tuner • YC: S video signal • AV: Audio/Video

TV screen: TV, AV1, RGB, AV2, YC2, AV3, YC3
PIP: TV, AV1, AV2, YC2, AV3, YC3
Output: TV, AV1, AV2, YC2, AV3, YC3

- 4 Push to blue or green to select the desired source. Press joystick **1** to store.
- 5 Press MENU 16 to restore the normal TV picture.

## Remote Control of other Sony Equipment ...

Using the buttons ② on the Remote Commander you can control other Sony equipment.

1 Set the selector VTR 1 2 3 MDP according to the equipment you want to control.

VTR 1: Beta VCR VTR 2: 8mm VCR VTR3: VHS VCR MDP: Video Disk Player

2 Use the buttons 2 on the Remote Commander to operate the equipment.

#### Tip

- If your video equipment has a COMMAND MODE selector, set this selector to the same position as the VTR 1 2 3 MDP selector on the TV Remote Commander.
- If the equipment does not have a certain function, the corresponding button on the Remote Commander does not work.



#### Joystick



# Additional Information

## Troubleshooting

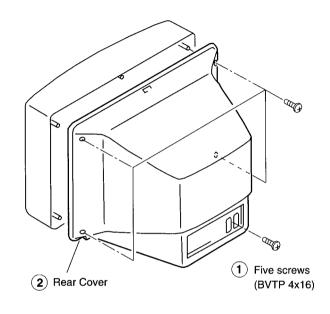
Here are some simple solutions to problems which may affect the picture and sound.

Problem	Solution		
No picture (screen is dark), no sound	• Plug the TV in.		
	<ul> <li>Press          ①          ■ on the TV. (If          © indicator          ■ is on, press          ○          or a programme number          ② on the Remote Commander.)</li> </ul>		
	Check the aerial connection.		
	<ul> <li>Check if the selected video source is on.</li> </ul>		
	<ul> <li>Turn the TV off for 3 or 4 seconds and then turn it on again using ⊕</li> </ul>		
Poor or no picture (screen is dark), but good sound	<ul> <li>Press  to enter the PICTURE CONTROL menu and adjust »Brightness«, »Contrast« and »Colour«.</li> </ul>		
Poor picture quality when watching an RGB video source	• Press ⊕ <b>②</b> repeatedly to select ゼ.		
Good picture but poor or no sound	Press ∠ +⑥.  If ⋘ is displayed on the screen, press ⋘ 1.		
No colour for colour programmes	<ul> <li>Press  to enter the PICTURE CONTROL menu, select RESET, then press joystick  .</li> </ul>		
Remote Commander does not function.	Replace batteries.		

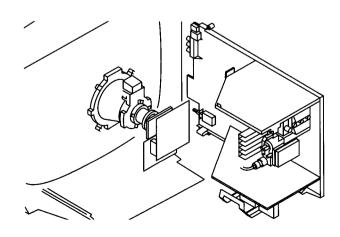
If you continue to have problems, have your TV serviced by qualified personnel. Never open the casing yourself.

# SECTION 2 DISASSEMBLY

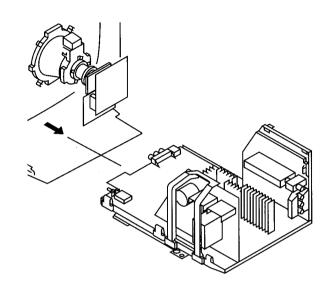
## 2-1. REAR COVER REMOVAL



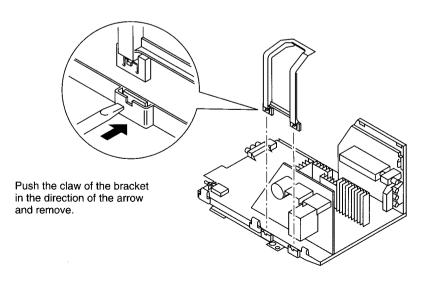
## 2-3. SERVICE POSITION



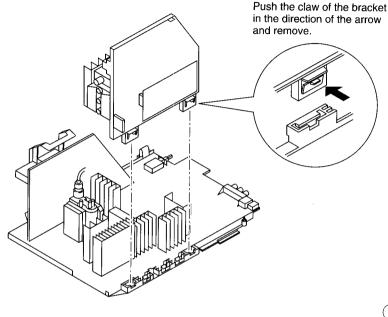
## 2-2. CHASSIS ASSY REMOVAL



## 2-4. G BOARD REMOVAL



(7) Degaussing coil

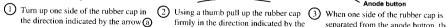


## **REMOVAL OF ANODE-CAP**

Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

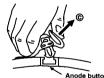
### \* REMOVING PROCEDURES.







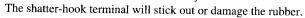
firmly in the direction indicated by the

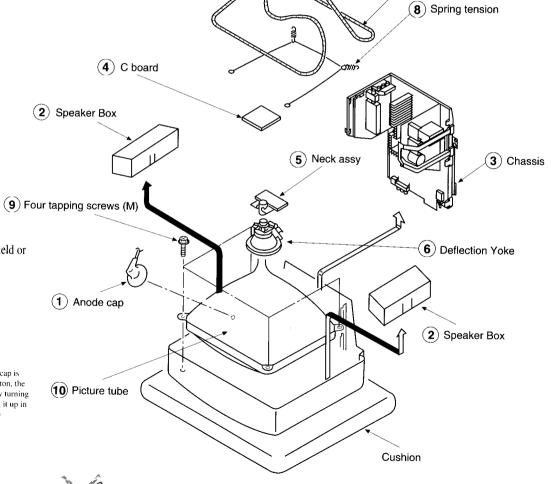


separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow (c)

## **HOW TO HANDLE AN ANODE-CAP**

- 1 Don't damage the surface of anode-cap with sharp shaped material!
- 2 Don't press the rubber hardly not to hurt inside of anode-caps! A metal fitting called a shatter-hook terminal is built into the rubber.
- 3 Don't turn the foot of rubber over hardly!





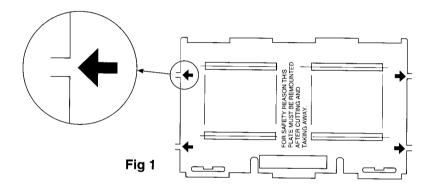


# REMOVAL AND REPLACEMENT OF THE MAIN-BRACKET BOTTOM PLATES.

## (1) REMOVING THE PLATES

In the event of servicing being required to the solder side of the D Board printed circuit, the bottom plates fitted to the main chassis bracket require to be removed. This is performed by cutting the gates with a sharp wire cutter at the locations shown and indicated by arrows.

**Note:** There are 5 plates fitted to the main bracket and secured by 4 or 6 gates. Only remove the necessary plate to gain access to the circuit board.



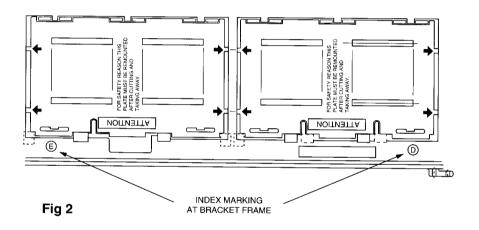
# For safety reasons, on no account should the plates be removed and not refitted after servicing.

## (2) REFITTING THE PLATES

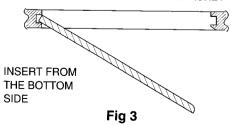
Because the plates differ in size it is important that the correct plates are refitted in their original location.

The plates are identified by markings A-B-C-D-E on their top side.

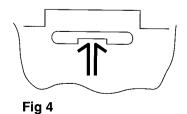
- 1. Identify the plate by locating its marking.
- 2. Turn the plate over noting where the marking is located.
- 3. Locate the corresponding marking indicated on the main chassis bracket. See Fig 2.
- 4. Refit the plate as indicated in Fig 3 with the markings located next to each other.



MAIN BRACKET



In the event of the plates requiring to be removed at a later stage, this can be achieved by inserting a screwdriver in the snap-recess indicated as in Fig 4 and lifting out.



# SECTION 3 SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustment with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches as follows.

Contrast ...... normal Brightness ...... normal

- Carry out the following adjustments in this order:
- 3-1. Beam landing
- 3-2. Convergence
- 3-3. Focus
- 3-4. White balance

Note: Testing equipment required.

- 1. Color bar/pattern generator
- 2. Degausser
- 3. Vector scope

## 3-1. BEAM LANDING

## **Preparation:**

- 1. In order to reduce the influence of geomagnetism on the set's picture tube face it in an easterly or westerly direction.
- 2. Switch on the set's power and degauss with the degausser.

## (1) Adjustment of Correction Magnet for Y-Splitting Axis

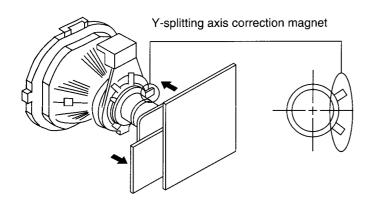
- 1. Input a crosshatch signal from the pattern generator.
- Picture control is minimum and brightness control is still normal.
- 3. Position the neck assy as shown in Fig. 3-2.
- 4. Move the deflection yoke forward to touch the CRT and it stands up rightly.
- 5. Adjust the upper pin and the lower pin symmetrically by opening or closing the Y-splitting axis correction magnets on the neck assy.
- 6. Return the deflection yoke to its original position.

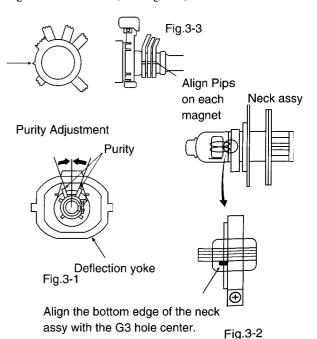
## (2) Landing

**Note:** Before carrying out the following adjustments adjust the magnets as indicated below (See Fig.3-3).

- 1. Input an all-white signal from the pattern generator.

  Maximize the picture setting and adjust the brightness setting.
- 2. Rough-adjust the focus and horizontal convergence.
- 3. Loosen the deflection yoke screws, align the purity adjustment knob to the central position. (See Fig. 3-1)
- 4. Switch from the all-white pattern to an all-green pattern.
- 5. Move the deflection yoke backwards and adjust with the purity magnet so that the green is at the center and it aligns symmetrically. (See Fig. 3-4)
- 6. Move the deflection yoke forward and adjust so that entire screen becomes green.
- 7. Switch the raster signal to red, then to blue and verify the landing condition.
- 8. When the position of the deflection yoke has been determined, fasten the deflection yoke with the screw.
- 9. If the beam does not land correctly in all the corners, use magnets to correct it. (See Fig. 3-5)





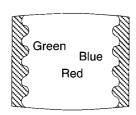
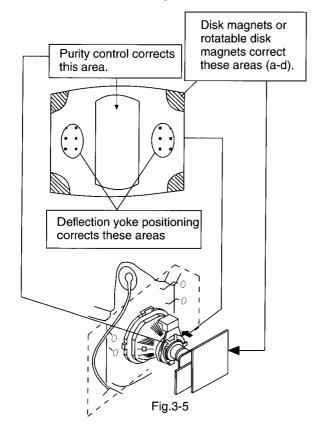


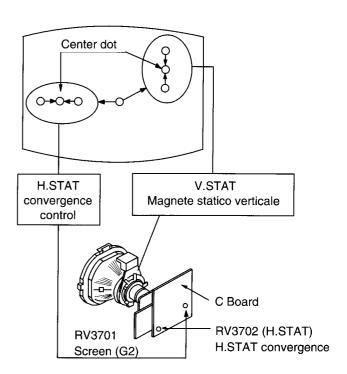
Fig.3-4



## 3-2. CONVERGENCE

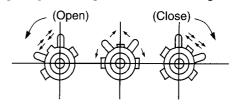
# (1) Screen center convergence (Static convergence)

- 1. Input a dot signal from the pattern generator. Normalize the picture setting.
- 2. (Moving horizontally), adjust the H.STAT control so that the horizontal red, green and blue dots coincide at the center of screen.
- 3. (Moving vertically), adjust the V.STAT magnet so that the vertical red, green and blue points coincide at the center of screen.

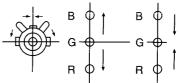


• If the horizontal dots are unable to coincide with the variable range of the H.STAT convergence, adjust together with the V.STAT convergence while tracking.

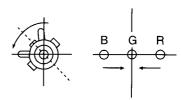
(Adjust the convergence by tilting the V.STAT convergence or by opening or closing the V.STAT convergence.)



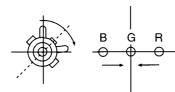
- Movement of the red, green and blue dots by tilting the V.STAT magnet and by opening or closing the V.STAT magnet.
- ① By opening or closing the V.STAT magnet, the red, green and blue points move as shown below



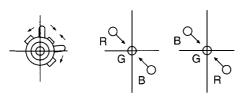
②By rotating the V. STAT magnet counterclockwise, the red, green and blue dots move as shown below.



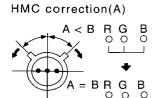
(3) By rotating the V.STAT magnet clockwise, the red, green and blue dots move as shown below.



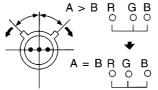
(4) By opening or closing the V.STAT magnet, the red, green and blue dots move as shown below.



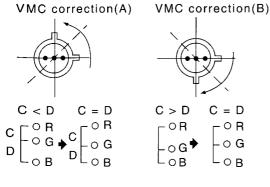
- If the blue dot does not coincide with the red and green points, correct the points by using the BMC (Hexapole) magnet.
- (vertical mis-convergence) by using the BMC (Hexapole) magnet.
- ①HMC correction by BMC (Hexapole) magnet and movement of the electronic beam.



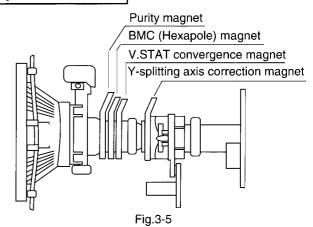




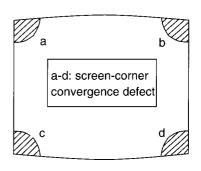
② VMC correction by BMC (Hexapole) magnet and movement of the electronic beam.



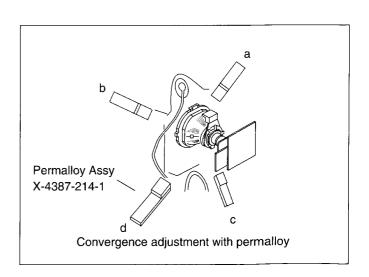
## Layout of each control



2. If you are unable to adjust the corner convergence properly, correct them with the use of permalloys.



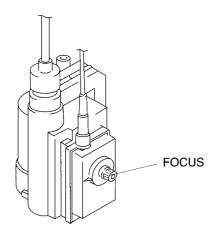




### 3-3. Focus

- 1. Receive a television broadcast signal.
- 2. Normalize the picture setting.
- 3. Adjust the focus control on the flyback transformer for the best focus at the center of the screen.

  Bring only the center area of the screen into focus, the magenta-ring appears on the screen. In this case, adjust the focus to optimize the screen uniformly.



# 3-4. Screen (G2), White balance (Adjustment in the service mode with remote commander)

## G2 adjustment (RV3701)

- 1. Input a dot signal from the pattern generator.
- 2. Set the Picture, Brightness and Colour to minimum.
- 3. Apply 170V DC from an external power supply to the R, G and B cathodes of the CRT.
- 4. While watching the picture, adjust the G2 control RV3701 [ SCREEN ] on the C board to the point just before the return lines disappear.

## White balance adjustment

- 1. Receive an all-white signal.
- 2. Enter into the Service Mode by pressing 'TEST', 'TEST' and 'MENU' on the Service Commander.
- 3. Select 'VIDEO PROC.' from the on screen menu display and press OK.
- 4. The 'VIDEO PROC TDA4780' menu will appear on the screen.

### Video Proc. TDA4780

Item No	Adjustment item	Data Amount
1	BRT	USER CONTROL
2	COL	USER CONTROL
3	PIC	USER CONTROL
4	HUE	USER CONTROL
5	R GAIN	31
6	G GAIN	Adj
7	B GAIN	Adj
8	R LVL REF	31
9	G LVL REF	Adj
10	B LVL REF	Adj
11	PEAK DRV LIMIT	63
12	GAMMA	31
13	SCP ON = 3LEV OFF = 2LEV	ON
14	DELAY	OFF

- 5. Set picture to MAX.
- 6. Set the 'R GAIN' to 25.
- 7. Adjust the 'G GAIN' and 'B GAIN' so that the white balance becomes optimum.
- 8. Press the OK button to write the data for each item.
- 9. Set picture to MIN.
- 10. Set the 'R LVL REF' to 31.
- 11. Adjust 'G LVL REF', and 'B LVL REF' with the left and right buttons so that the white balance becomes optimum.
- 12. Press the OK button to write the data for each item.

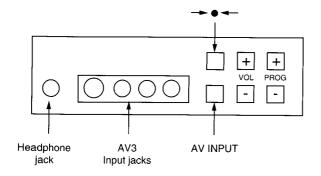
# SECTION 4 CIRCUIT ADJUSTMENTS

## 4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander, RM-862.

## **HOW TO ENTER INTO SERVICE MODE**

1. Turn on the main power switch of the set while pressing the PROG + (plus) and PROG - (minus) buttons on the front panel.



- 2. "TT" will appear on the upper right corner of the screen.
- 3. Press " MENU " on the commander to get the service menu on screen.

DEVICES	
Init TV	*
Pip, Lumisponder & Autosi	de
Sub Adjust	
Video Proc	TDA4780
Col Dec Main	TDA9144
Deflect. Cont	SDA9361
Col Dec Sub	TDA9143
Feature Box	S87C654
Al	TDA9170
DA	SDA9280
Single PIP	SDA9288
Sound	
Line23 det	

- 4. Push the joystick up (green) or down (blue) on the remote commander to select the adjustment item.
- 5. Press the center button to proceed to the next menu.
- 6. If the adjustment item is 'Video Proc.', push the down button to move to 'Video Proc.'.
- 7. The Menu as indicated in Fig 4-3 will appear on the screen.
- 8. Move the joystick up or down to move to the adjustment item and press the center (OK) button.
- 9. Change the data in order to comply with each standard.

Item No	Adjustment item	Data Amount
1	BRT	USER CONTROL
2	COL	USER CONTROL
3	PIC	USER CONTROL
4	HUE	USER CONTROL
5	R GAIN	31
6	G GAIN	Adj
7	B GAIN	Adj
8	R LVL REF	31
9	G LVL REF	Adj
10	B LVL REF	Adj
11	PEAK DRV LIMIT	63
12	GAMMA	31
13	SCP ON = 3LEV OFF = 2LEV	ON
14	DELAY	OFF
15	DATA BUFF	OFF
16	NTSC MATRIX	OFF
17	HDTV	OFF
18	FSBL	OFF
19	AUTO CUT OFF	ON
20	FSW 2 DIS	OFF
21	FSW 2	OFF
22	FSW 1 DIS	OFF
23	FSW 1	OFF
24	ADAPT BLACK	OFF
25	Y HIGH 1V	OFF
26	MOD2	OFF
27	BLUE STRETCH	OFF
28	VM OUT	OFF
29	PEAK DRV ABS	ON
30	TIME CNST PEAK LIMIT	OFF

Fig. 4-3

## SDA9361 (VIDEO PROC.)

Item No	Adjustment item	Data Amount
1	HDE	ON
2	VR	0
3	RABL	ON
4	BLK DIS	OFF
5	2FH 2*LINE FRQ	ON
6	STANDBY MODE	OFF
7	VERTICAL	ON
8	BSE BLK SELECT	OFF
9	SSE START SCAN	OFF
10	SRSE START RED SCAN	OFF
11	GBE GUARD BAND	OFF
12	STE SCAN TIME TABLE	OFF
13	NSA SELF ADAPTION	ON
14	V SHIFT	ADJ
15	V SIZE	ADJ
16	V LIN	ADJ
17	V S-COR	ADJ
18	V EHT COMP	25" = 78 29" = 100 28" = 36 32" =
19	H SIZE	ADJ
20	PIN PHASE	ADJ
21	PIN AMP	ADJ
22	UP COR PIN	ADJ
23	LOW COR PIN	ADJ
24	H EHT COMP	25" = 78 29" = 100 28" = 36 32" =
25	H SHIFT	ADJ
26	V ANGLE	ADJ
27	V BOW	ADJ
28	PWM START	0

Item No	Adjustment item	Data Amount
29	D/A	0
30	V BLK TIME	0
31	H BLK TIME	0
32	STAR V SCAN	0
33	H BLK PHASE	0
34	V SCAN WIDTH 0	0
35	V SCAN WIDTH 1	0
36	GUARD BAND	0
37	START RED SCAN	0
38	NUMBER FIELDS	1
39	NI NON INTERLACE	OFF
40	NR VSYNC NOISE RED	ON
41	SCC WITH VBL	ON
42	MIN LINES/FIELD	0
43	MAX LINES/FIELD	0
44	AFC EHT COMP	0
45	PLL FREQ	6
46	VCR	ON
47	GEN MOD	OFF
48	HSWID	ON
49	INT H PHASE	239
50	PWM WIDTH	0
51	NOISY VCR	OFF
52	KILLZIP	OFF
53	TC3RD	OFF
54	BANDGAP 4 OFF	OFF
55	BANDGAP OFF	OFF
56	BANDGAP	0

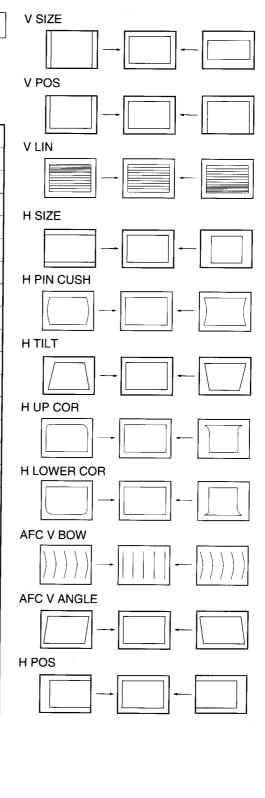
## TDA4780 (VIDEO PROC.)

Item No	Adjustment item	Data Amount
1	BRT	USER CONTROL
2	COL	USER CONTROL
3	PIC	USER CONTROL
4	HUE	USER CONTROL
5	R GAIN	25
6	G GAIN	Adj
7	B GAIN	Adj
8	R LVL REF	31
9	G LVL REF	Adj
10	B LVL REF	Adj
11	PEAK DRV LIMIT	0
12	GAMMA	31
13	SCP ON = 3LEV OFF = 2LEV	ON
14	DELAY	OFF
15	DATA BUFF	OFF
16	NTSC MATRIX	OFF
17	HDTV	OFF
18	FSBL	OFF
19	AUTO CUT OFF	ON
20	FSW 2 DIS	OFF
21	FSW 2	OFF
22	FSW 1	OFF
23	FSW 1	OFF
24	ADAPT BLACK	OFF
25	Y HIGH 1V	OFF
26	MOD2	OFF
27	BLUE STRETCH	OFF
28	VM OUT	OFF
29	PEAK DRV ABS	ON
30	TIME CNST PEAK LIMIT	OFF

## **DEFLECTION SYSTEM ADJUSTMENT**

- Enter into the service mode and select 'Deflect cont.'.The 'Deflect cont. SDA9361' adjustment menu will be displayed.
- 2. Select and adjust each item in order to get an optimum image.

Item No	Adjustment item	Data Amount
1	HDE	ON
2	VR	0
3	RABL	ON
4	BLK DIS	OFF
5	2FH 2*LINE FRQ	ON
6	STANDBY MODE	OFF
7	VERTICAL	ON
8	BSE BLK SELECT	OFF
9	SSE START SCAN	OFF
10	SRSE START RED SCAN	OFF
11	GBE GUARD BAND	OFF
12	STE SCAN TIME TABLE	OFF
13	NSA SELF ADAPTION	ON
14	V SHIFT	ADJ
15	V SIZE	ADJ
16	V LIN	ADJ
17	V S-COR	ADJ
18	V EHT COMP	25" = 78 29" = 100 28" = 36
19	H SIZE	ADJ
20	PIN PHASE	ADJ
21	PIN AMP	ADJ
22	UP COR PIN	ADJ
23	LOW COR PIN	ADJ
24	H EHT COMP	25" = 78 29" = 100 28" = 36
25	H SHIFT	ADJ
26	V ANGLE	ADJ
27	V BOW	ADJ
28	PWM START	0



## 4-2. VOLUME ELECTRICAL ADJUSTMENTS

## **Sub Brightness Adjustment**

- 1. Enter Service Mode (Device Menu).
- 2. Select 'SUB ADJUST MENU'.

## Sub adjustment

Sub Picture

Sub Color

Sub Brightness

4/3 Center

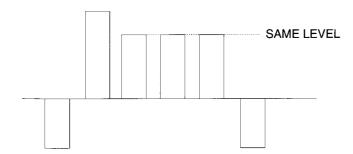
PAP H-Center

PAP HWE-Offset

3. Adjust the value according to the following advice.

## **Sub Color Adjustment**

- 1. Input a PAL color bar signal.
- 2. Connect an oscilloscope to CN3703.
- 3. Enter into 'SERVICE MODE'.
- 4. Choose 'SUB ADJUST'.
- 5. Enter into Sub Color mode.
- 6. Adjust data so that the right sides of the waveforms are of equal height.



## 4-3. **TEST MODE 2**:

Is available by pressing the Test button twice, OSD "TT" appears. The functions described below are available by pressing the two numbers. To release Test Mode 2, press 0, 10, 20 ... twice or switch the TV into Standby Mode. Pressing the two Local Control buttons (+ and -) during Power ON will also switch into "TT" mode.

In TT mode, it is possible to remove the Menu from the screen by pressing the Speaker Off button once. Pressing the Speaker OFF button a second time will cause the menu to reappear. The Function is kept even when the menu is not displayed!!

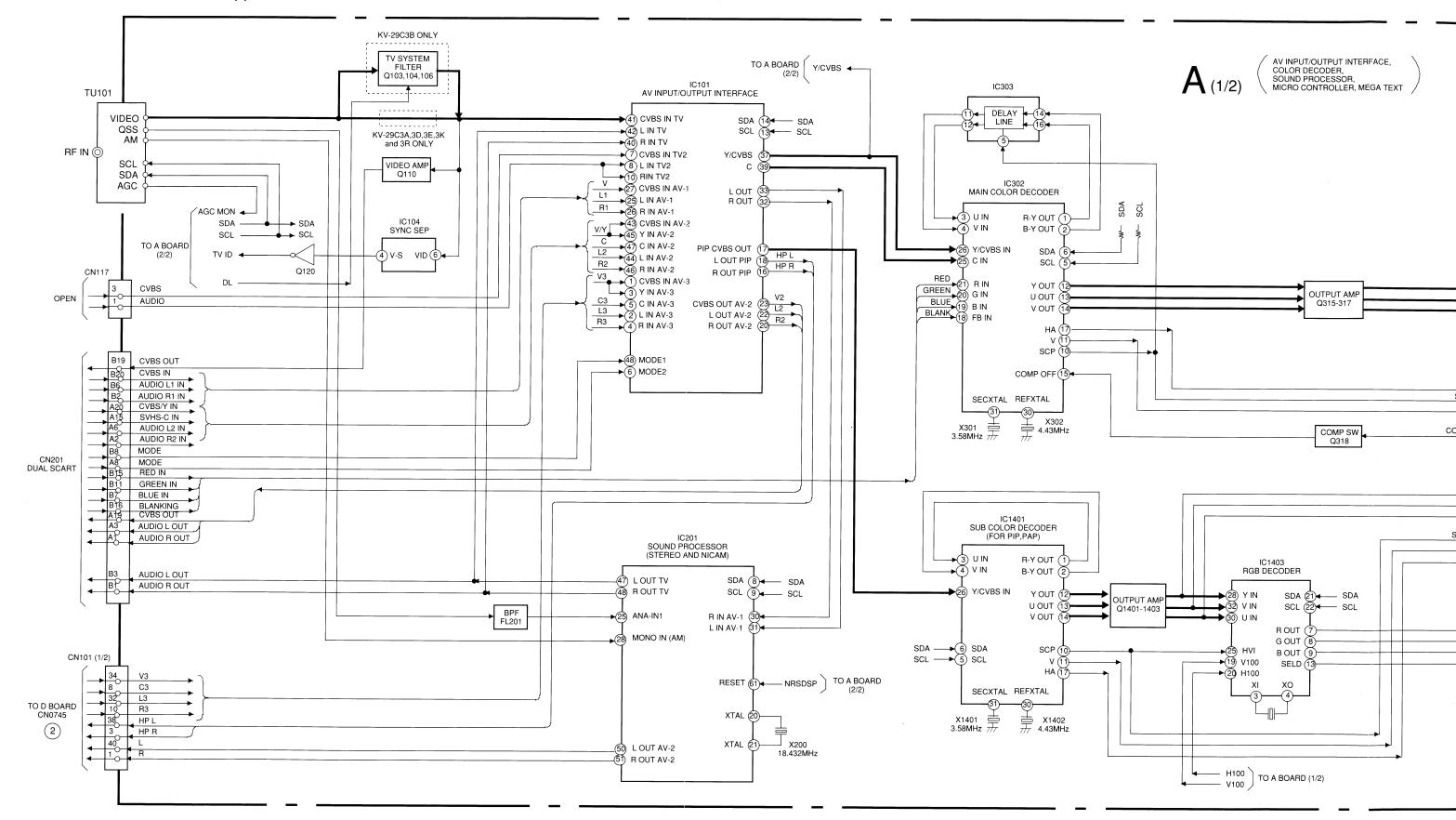
00	Switch back to normal mode - TT mode off
01	Switch service menu on
02	Direct access to Noise reduction
03	Set volume to 30%
04	Service menu in "Service Mode"
05	Service menu in "Production Mode"
06	Set Volume to 80%
07	Aging Mode
08	Shipping Condition
09	Language Reset
10	The TT number will be deleted
11	Direct access to Balance
12	Direct access to Hue
13	Display of TV set configuration
14	Production Info Display
15	Read Analog from ROM
16	Save Analog F in NVM
17	This function presets the Labels for the AV sources: AV1, RGB, AV2, YC2, AV3, YC3, AV4, YC4.
18	No function
19	No function
20	See TT10
21	Picture Rotation automatic function: (-4) -> (+4) -> 0
22	Error Monitor Display
23	Direct access to Sub Brightness Adjustment.
24	Direct access to Sub Colour.
25	Status Menu Display
26	Text Character selection (Char set 06 -> West Europe)
27	Text Character selection (Char set 38 -> East Europe)
28	Text Character selection (Char set 40 -> West Europe) US English
29	Text Character selection (Char set55 -> West Europe) Turkish
30	See TT10

31	no function
32	no function
33	no function
34	no function
35	no function
36	no function
37	no function
38	Screen Position
39	Reset Programme Table
40	See TT10
41	Picture Min
42	no function
43	no function
44	no function
45	Set NVM to Protect mode
46	IR Channel Pressetting Mode. The channel pressetting can be done by a Special transmitter.  Sequence: TT46 ->PR Number select display appears Select Prog. No. from where the channel shall be stored. > Now TV is waiting for IR sequence <> If no IR transmission starts TT46 is released after 20 secs Note: when TT46 is active, any transmission will be interpreted as PROG data!</td
47	no function
48	no function
49	New Initialize
50	See TT10
51	Strobo mode is activated.
52	no function
53	no function
54	Direct access to Velocity Modulation VM (Production use)
55	Slicer High
56	Slicer No
57	Megatext Service Menu on
58	MTX Small Framing Code Window

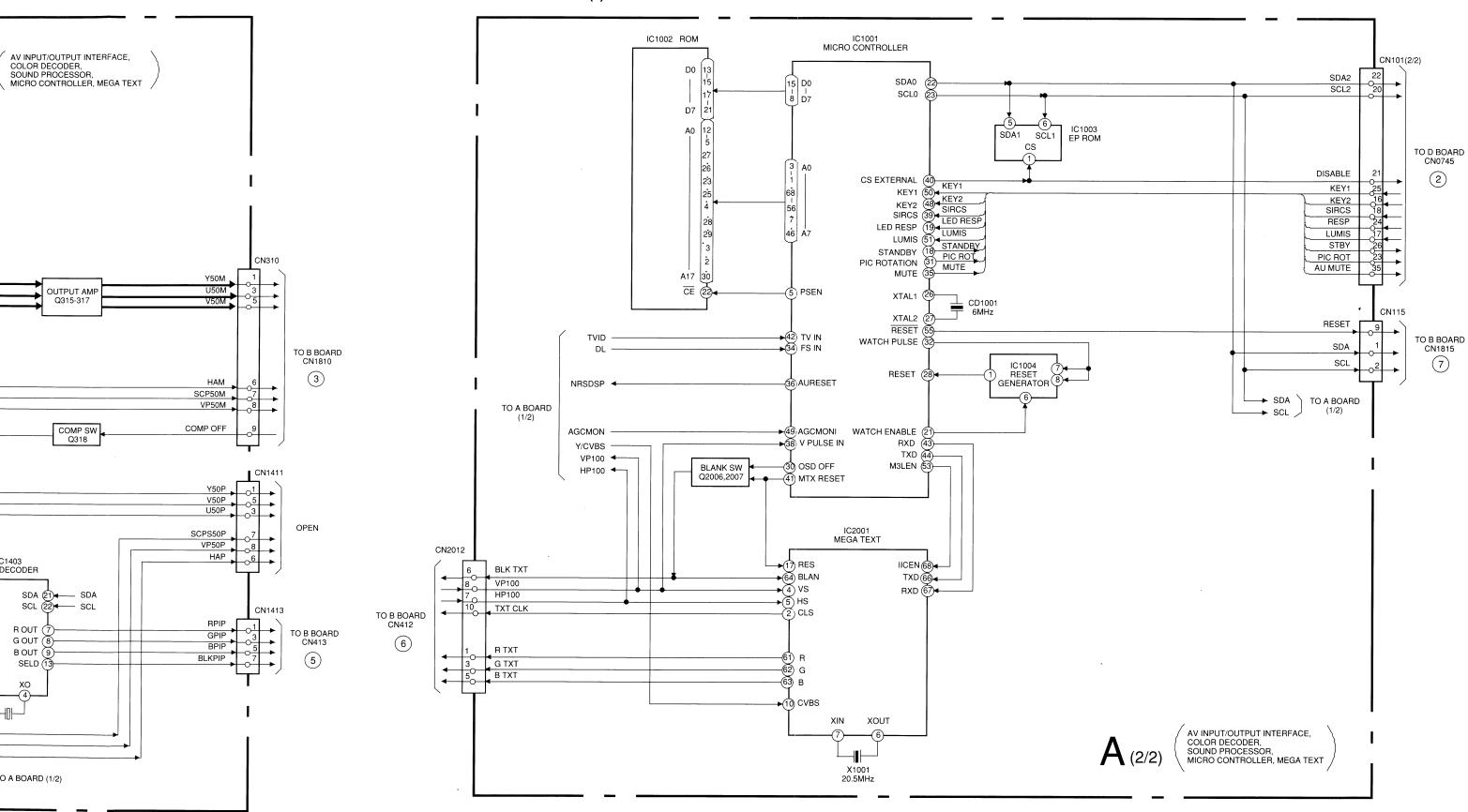
59	MTX Wide Framing Code Window
60	See TT10
61	no function
62	no function
63	no function
64	Reset all IIC Slave commands (Production use)
65	Reset stored error codes in NVM
66	Feature box and Pal Plus
67	no function
68	Ignore Errors - on
69	Ignore errors - off
70	See TT10
71	no function
72	no function
73	Megatext RGB textlevel one step decreased.
74	Megatext RGB textlevel one step decreased (max 1 steps down starting from E0h) (Production use)
75	no function
76	CDA9360
77	SDA9280
78	PIP
79	no function
80	See TT10
81	S87C654 Default data setting
82	TDA9170 Default data setting
83	SAA 7185WP Default data setting
84	TDA4780 Default data setting
85	TDA9144 Default data setting
86	TDA9143 Default data setting
87	SDA9288 Default data setting
88	Char set Russian
89	Char set Russian (esc)
90	See TT10

DIAGRAMS E

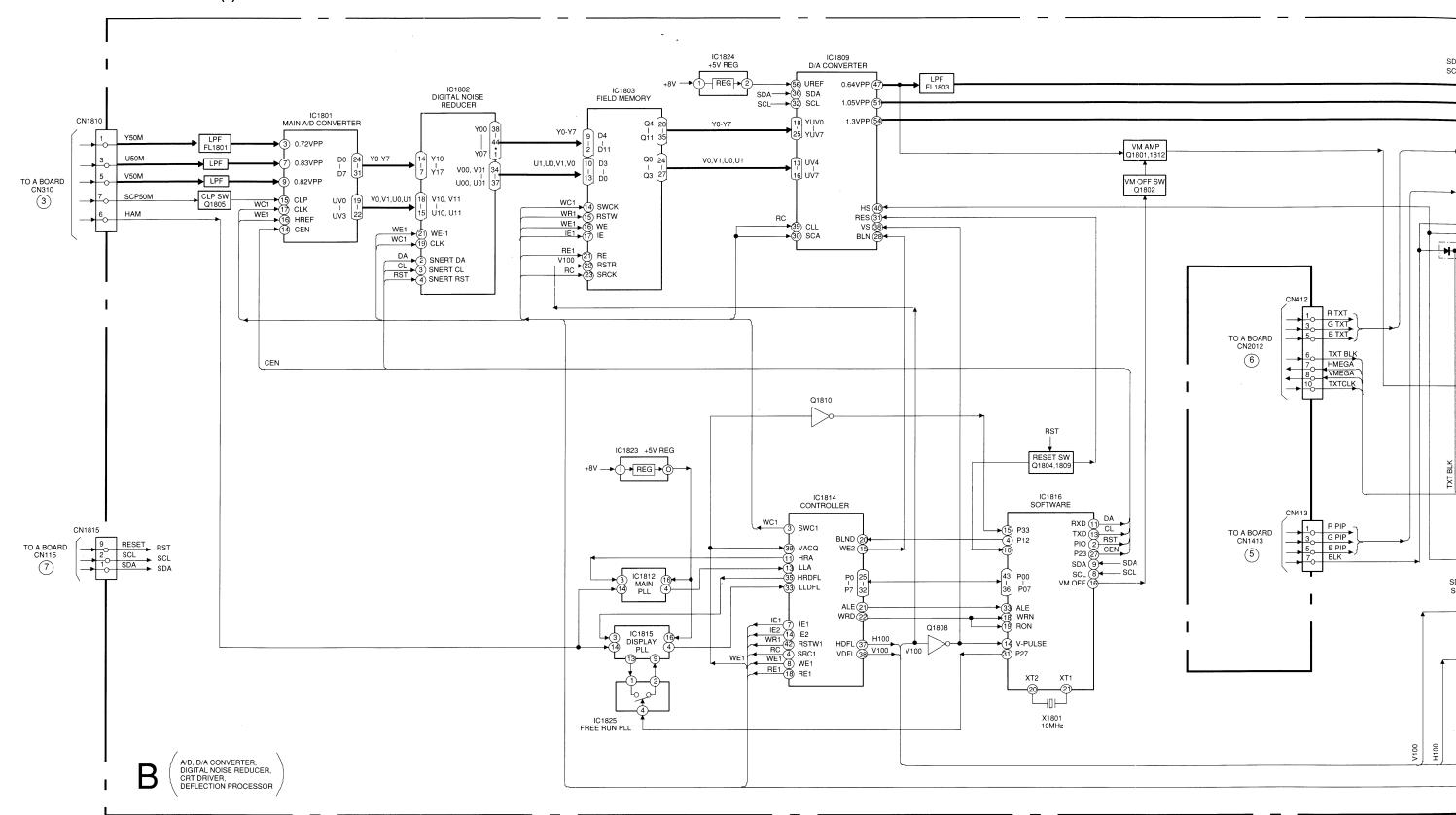
**BLOCK DIAGRAM (1)** 

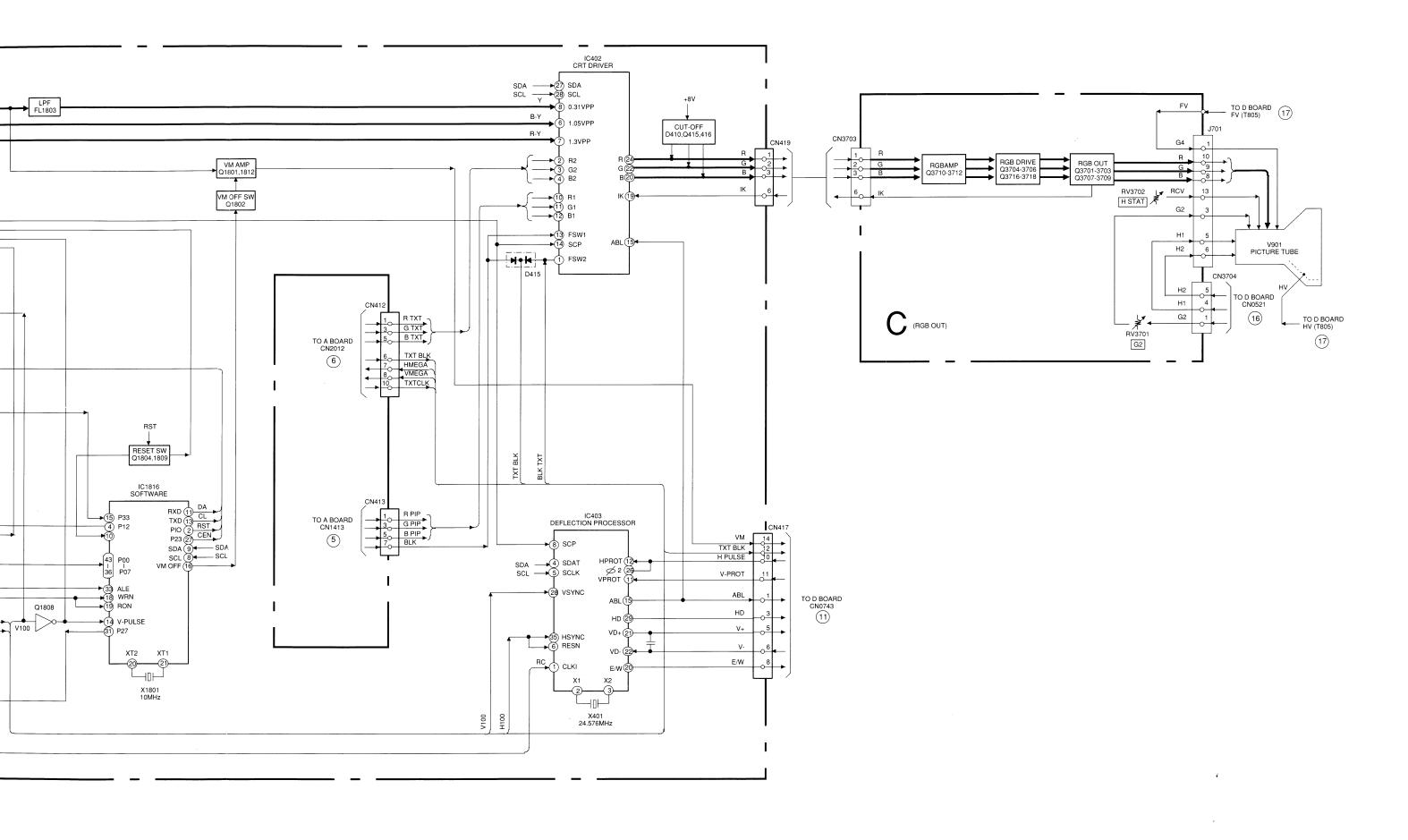


## **BLOCK DIAGRAM (2)**

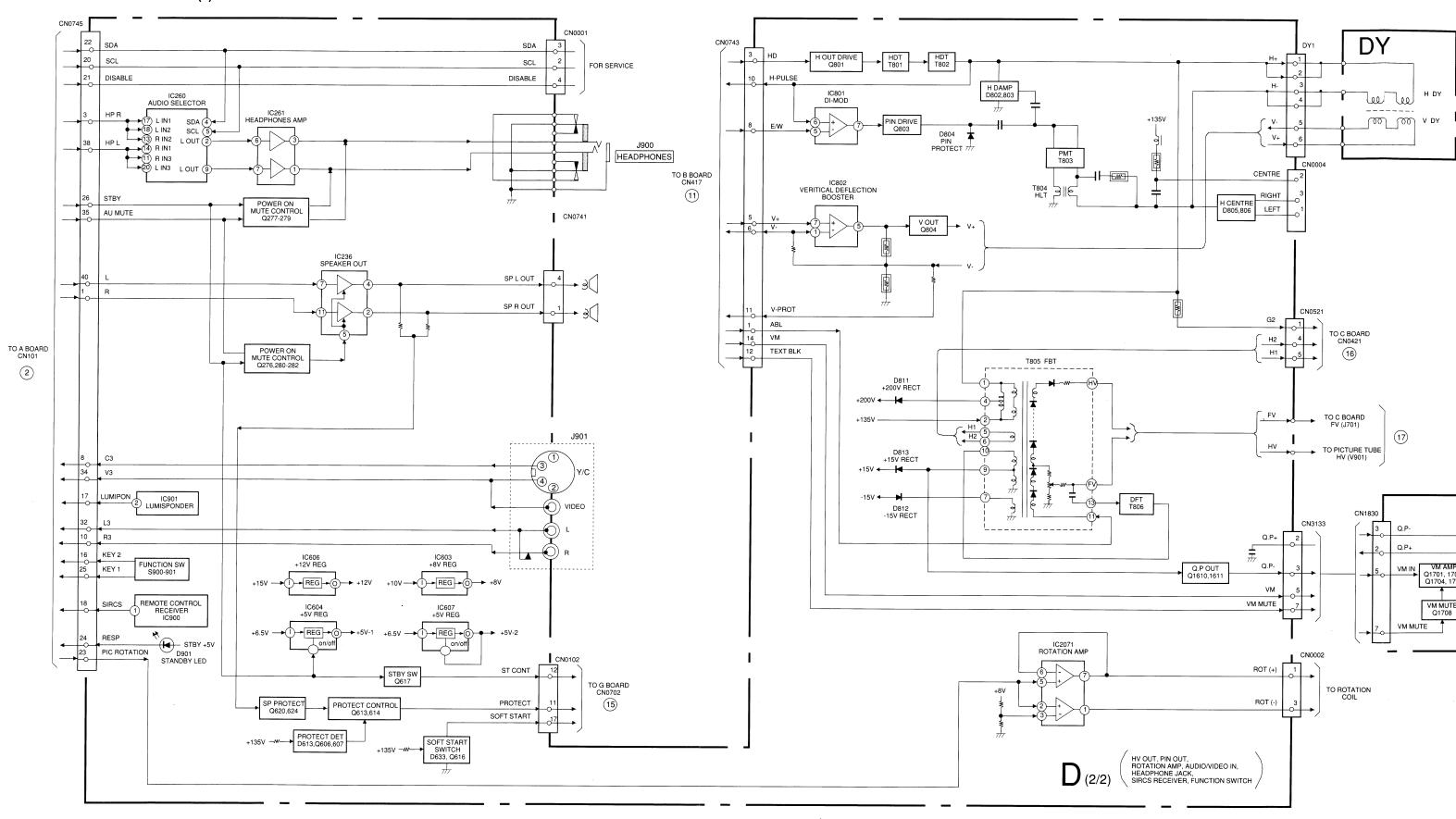


## **BLOCK DIAGRAM (3)**

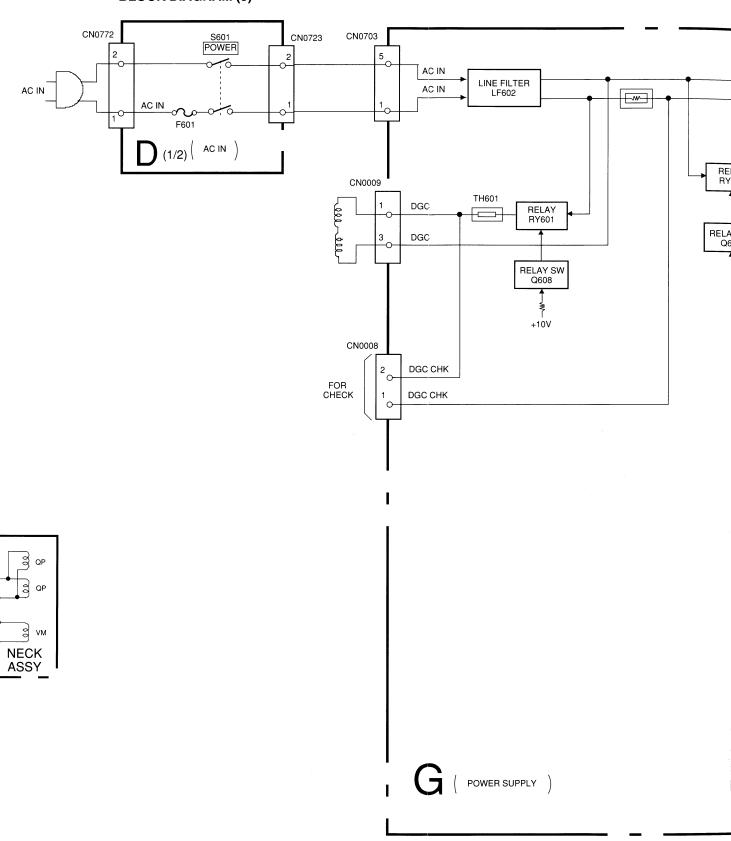


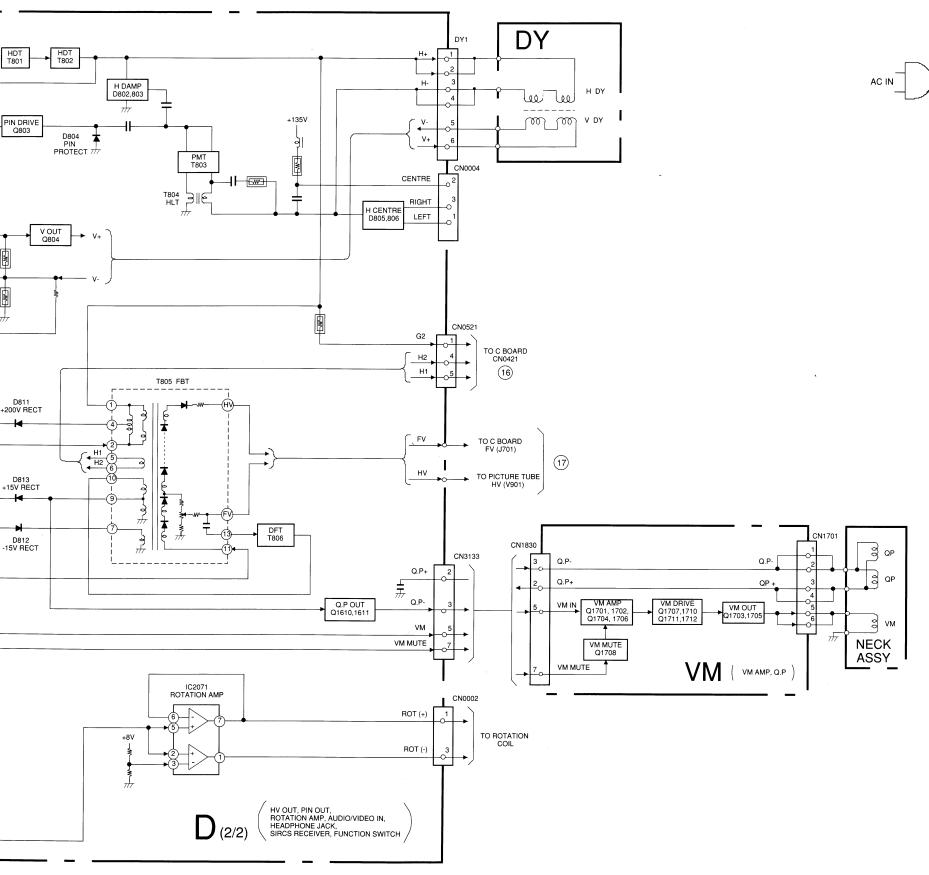


## **BLOCK DIAGRAM (4)**

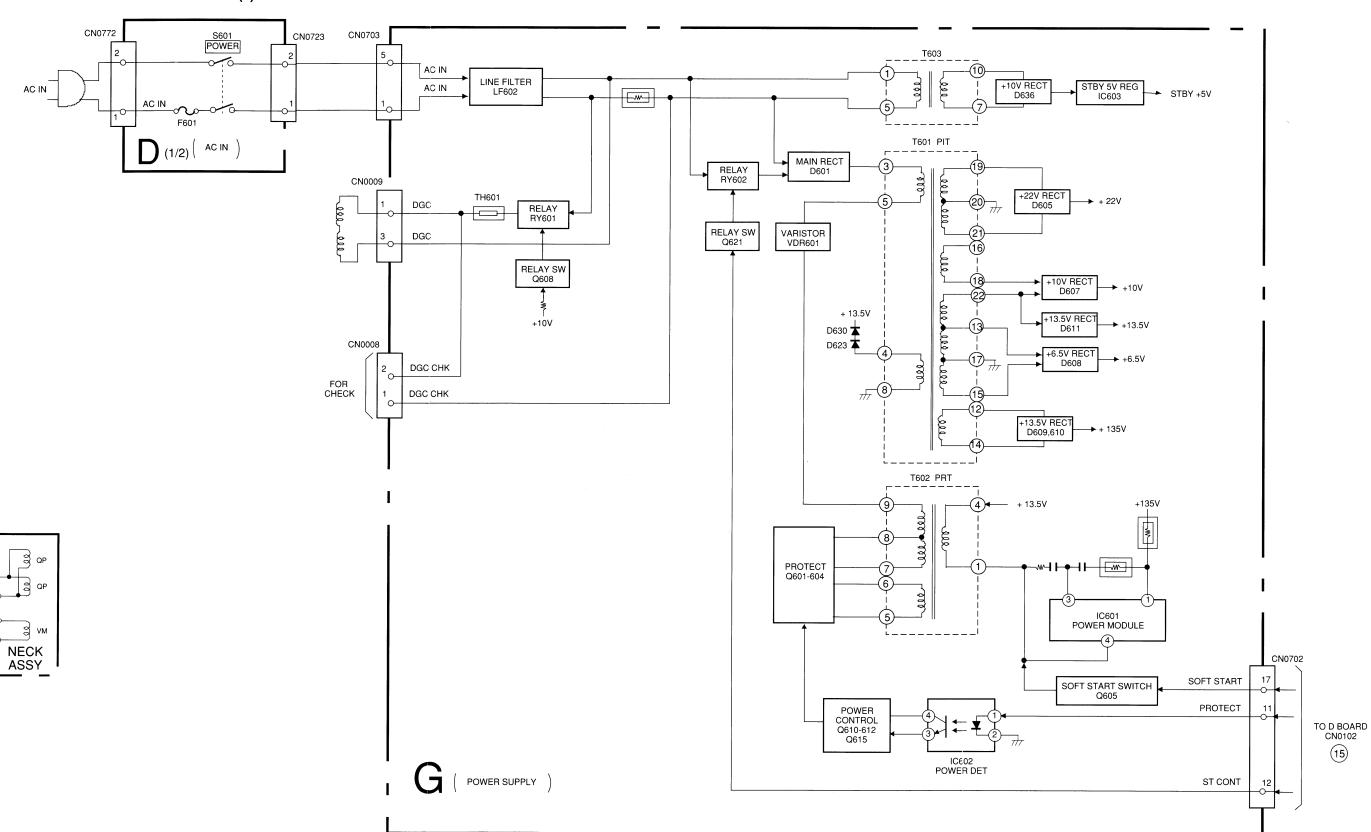


## **BLOCK DIAGRAM (5)**

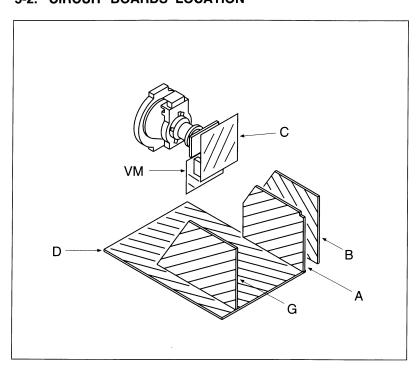




# **BLOCK DIAGRAM (5)**



#### 5-2. CIRCUIT BOARDS LOCATION



#### 5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

#### Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytic and tantalums.
- All resistors are in ohms.
   k = 1000 , M = 1000K
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5 mm Rating electrical power <sup>1</sup>/<sub>4</sub> W

: nonflammable resistor.
: internal component.

• : panel designation, or adjustment for repair.

All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

• ⊥ : earth - ground.
• ; earth - chassis.
• ; no mounted.

Note: The components identified by shading and marked are critical for safety. Replace only with the part number specified.

Note: Les composants identifies par une trame et une marque A sont critiques pour la securite.

Ne les remplacer que par une piece portant le numero specifie.

#### Reference information

: RN

RESISTOR

: RC SOLID : FPRD NONFLAMMABLE CARBON NONFLAMMABLE FUSIBLE : RS NONFLAMMABLE METAL OXIDE : RB NONFLAMMABLE CEMENT : RW NONFLAMMABLE WIREWOUND ADJUSTABLE RESISTOR : × COIL : LF-8L MICRO INDUCTOR CAPACITOR : TA TANTALUM : PS STYROL POLYPROPYLENE : PP : PT MYLAR METALIZED POLYESTER : MPS : MPP METALIZED POLYPROPYLENE : ALB **BIPOLAR** : ALT HIGH TEMPERATURE : ALR HIGH RIPPLE

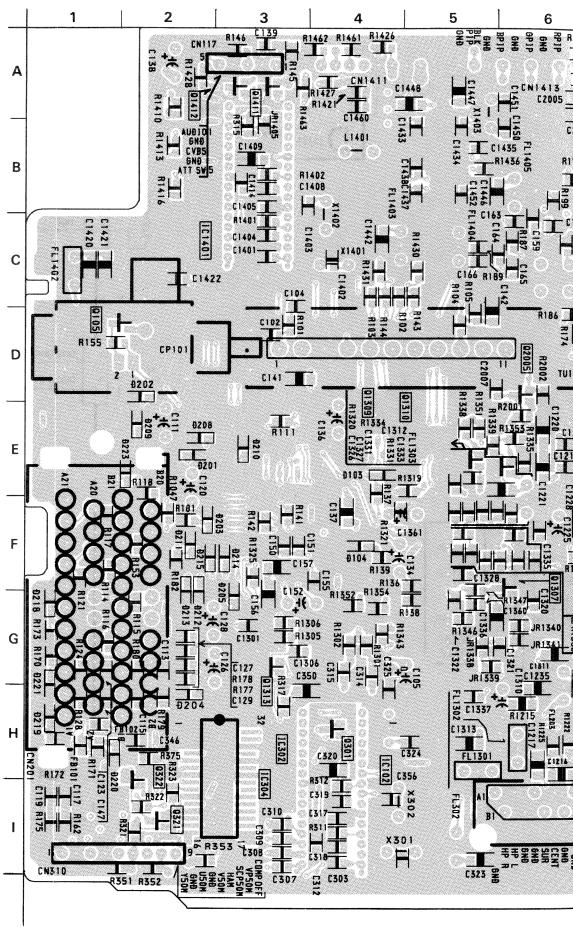
METAL FILM

- Readings are taken with a colour-bar signal input.
- Readings are taken with  $10M\Omega$  digital multimeter.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- Circled numbers are waveform references.
- : B+ bus.
- : signal path. (RF)

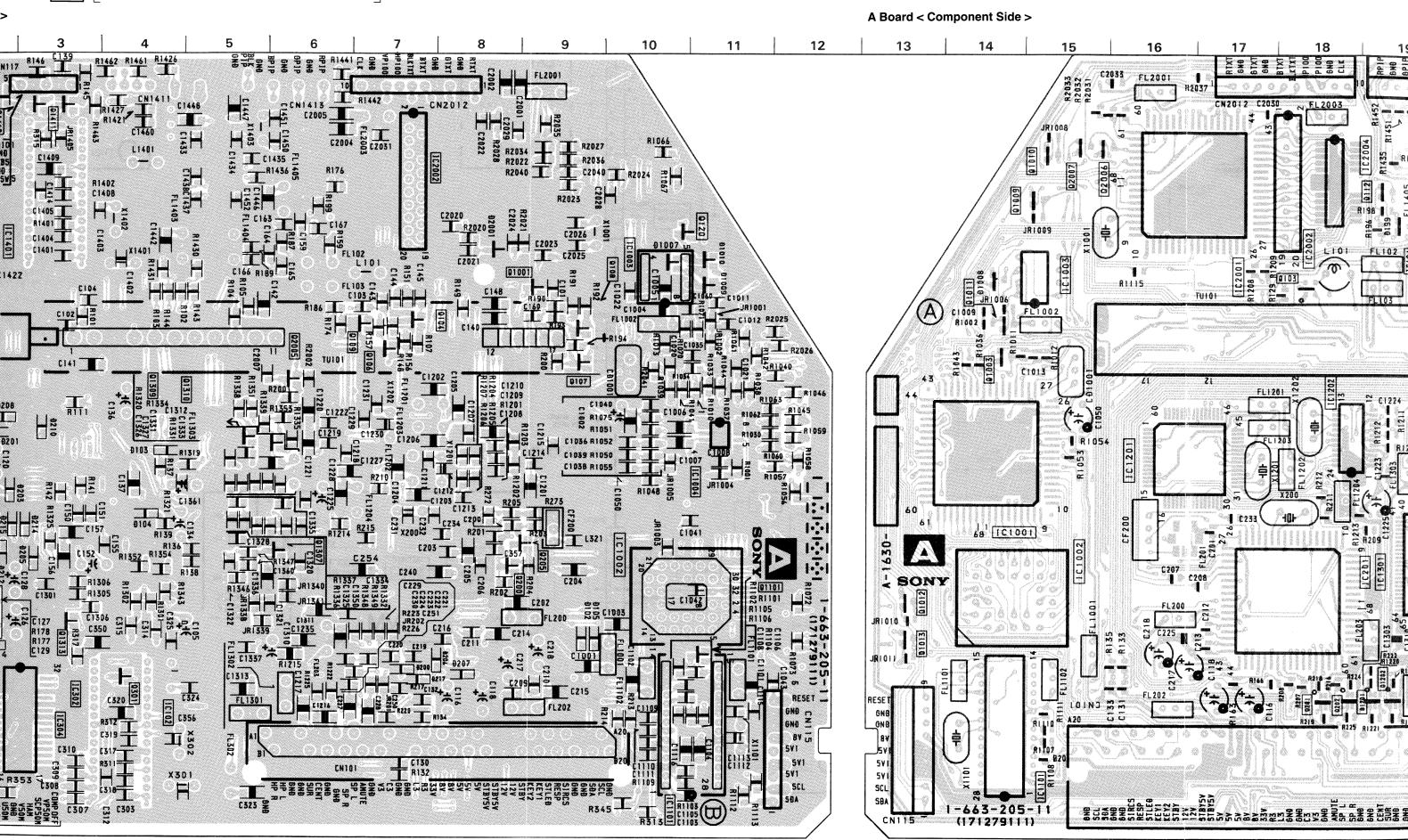
#### A Board < Conduc

# A Board < Conductor Side >

10	С	Q1404	B-21
IC101	E-22	Q1411	A-3
IC102	H-4	Q1412	A-2
IC104	C-19	Q2005	D-6
IC201	G-19	Q2006	B-15
IC302	H-3	Q2007	B-15
IC303	I-22	DIC	DDE
IC1001	F-14	D102	G-9
IC1002	G-10	D103	E-4
IC1003	C-10	D104	F-4
IC1004	E-11	D105	G-9
IC1401	C-2	D199	C-19
IC1403	B-21	D200	H-7
IC2001	C-17	D201	E-2
TRANS	ISTOR	D202	D-2
Q102	E-23	D203	F-3
Q103	C-18	D204	H-2
Q104	D-8	D205	F-3
Q106	D-7	D206	H-8
Q107	D-9	D207	H-8
Q108	C-10	D208	E-2
Q109	D-7	D209	E-2
Q110	E-22	D210	E-3
Q112	B-19	D211	F-2
Q120	C-11	D212	G-2
Q200	G-8	D213	G-2
Q205	F-9	D214	F-3
Q301	H-4	D215	F-2
Q302	I-22	D217	H-7
Q315	H-23	D218	G-1
Q316	I-24	D219	H-1
Q317	I-24	D220	H-1
Q318	H-22	D221	G-1
Q1001	C-9	D223	E-2
Q1301	H-22	D301	H-22
Q1305	G-21	D1007	C-10
Q1311	G-22	D1008	C-14
Q1312	F-22	D1009	C-11
Q1401	A-23	D1010	C-11
Q1402	B-23	D1405	B-21
Q1403	B-23	D2001	C-8

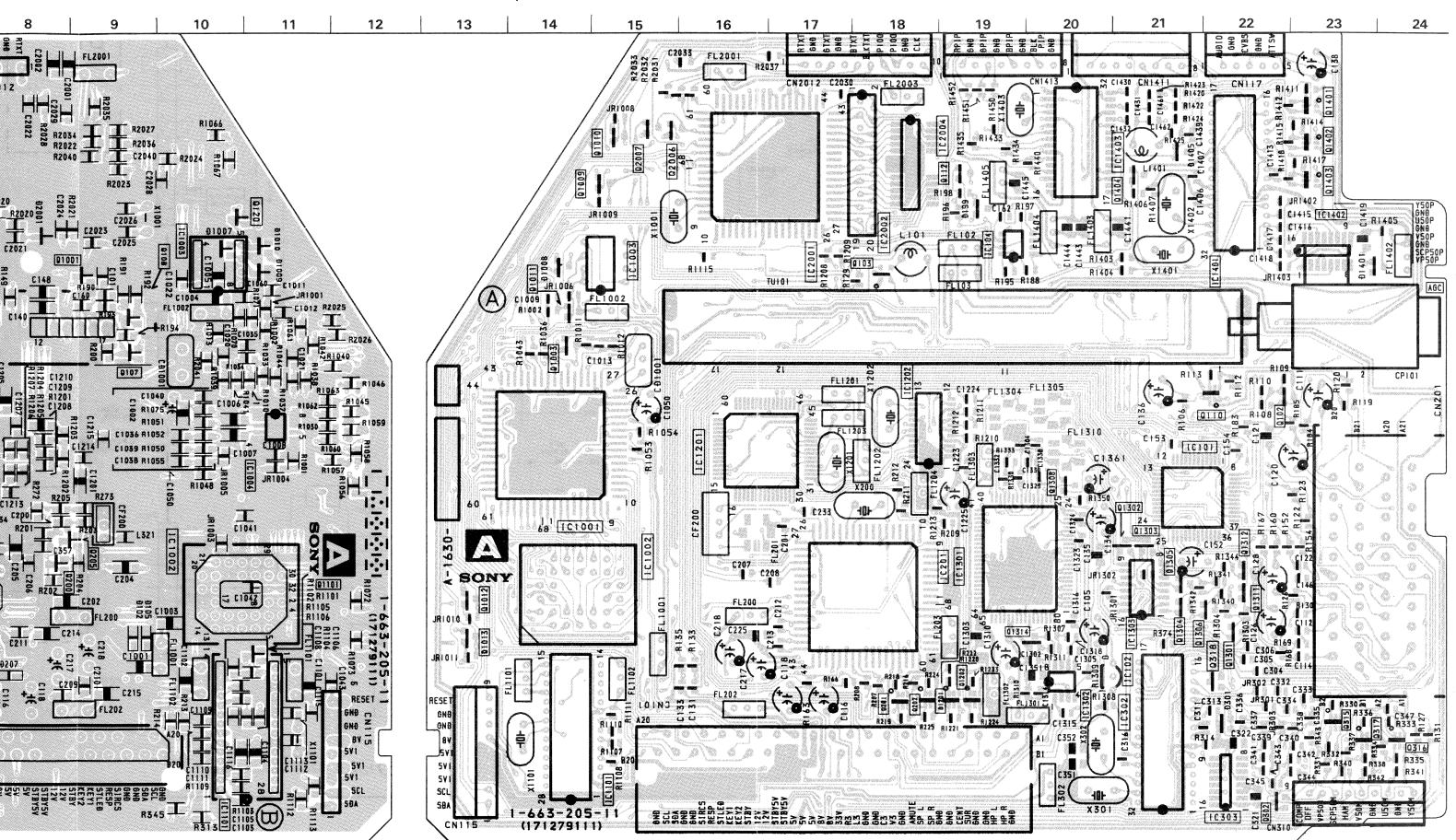


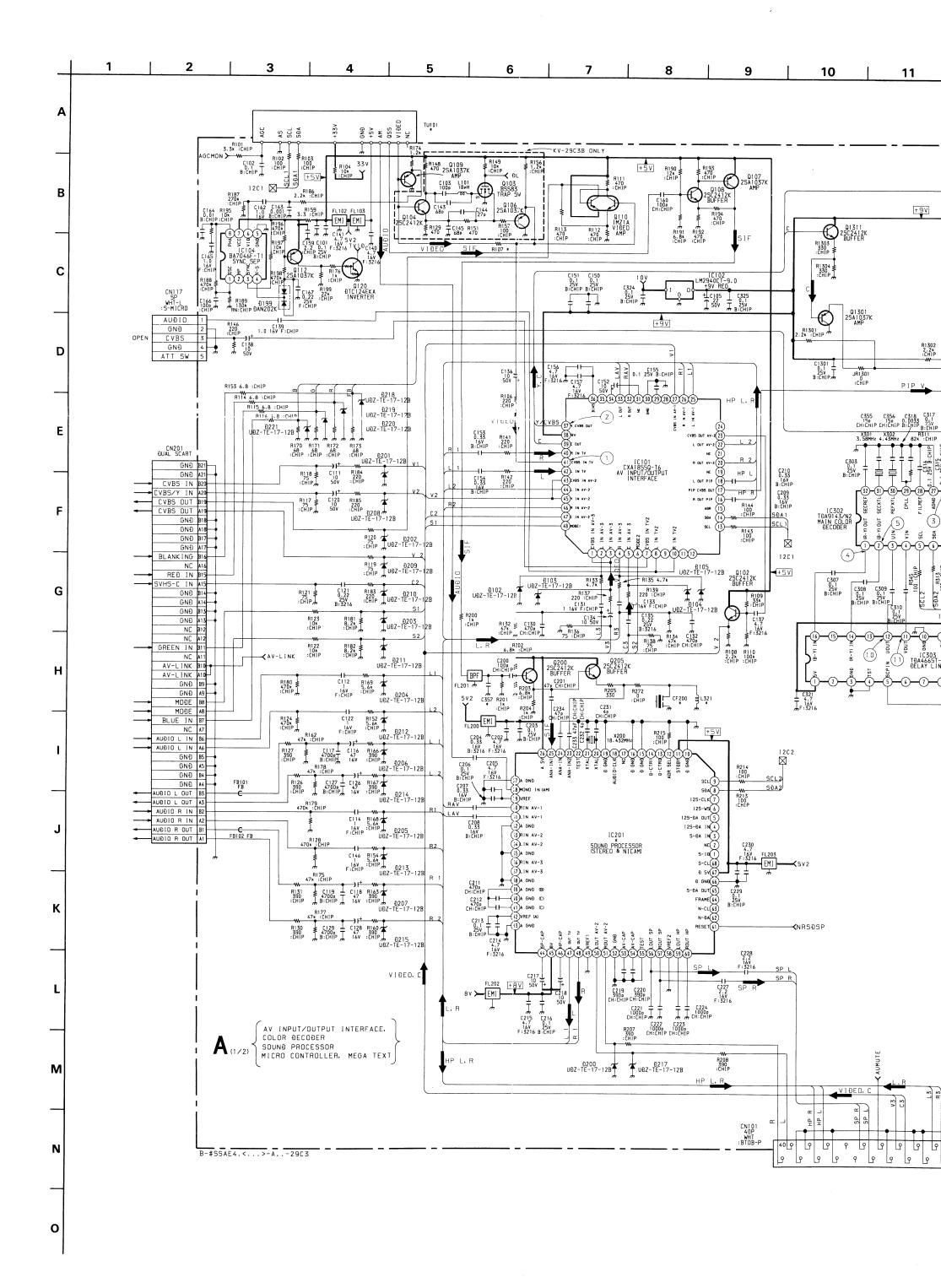
KV-29C3 KV-29C3

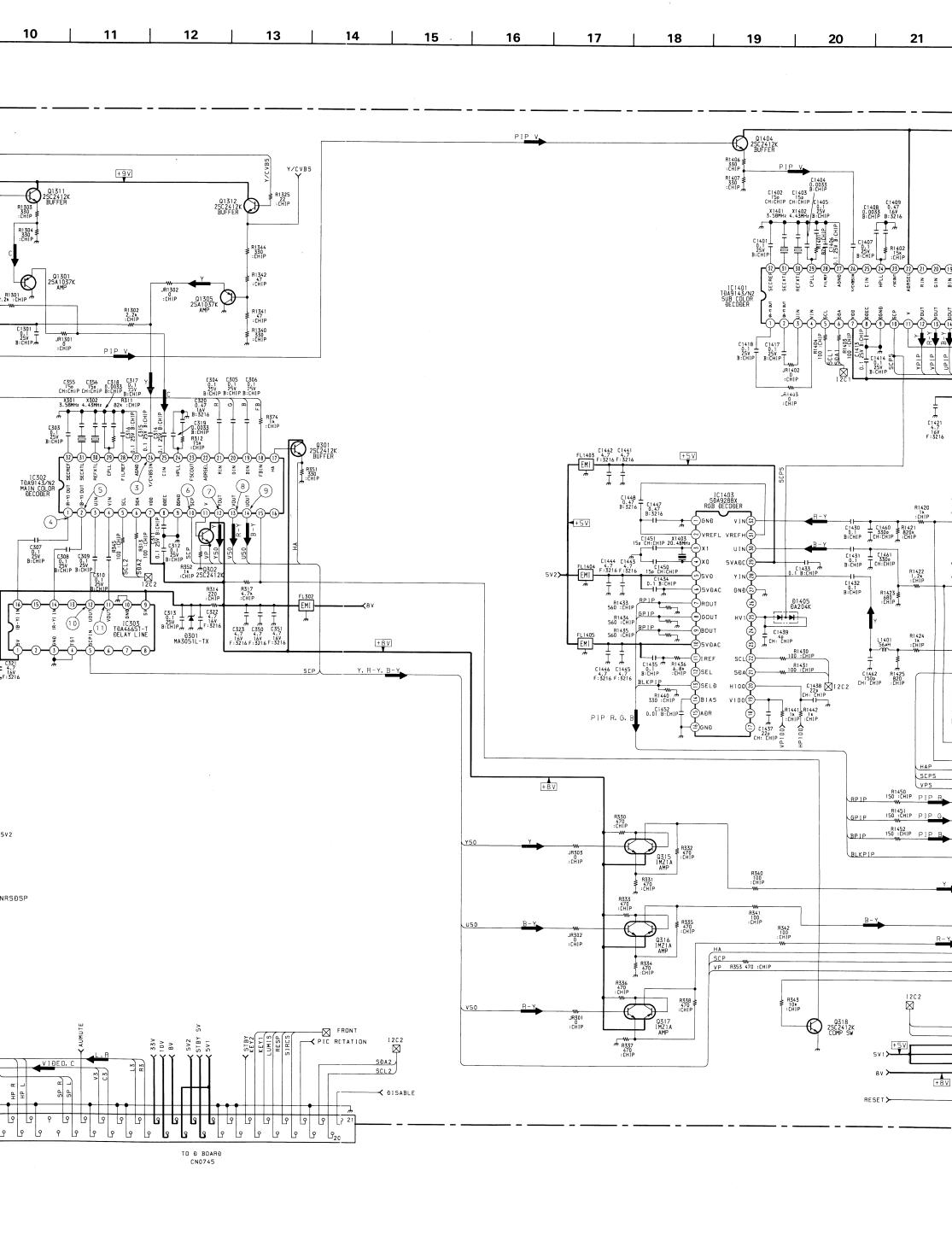


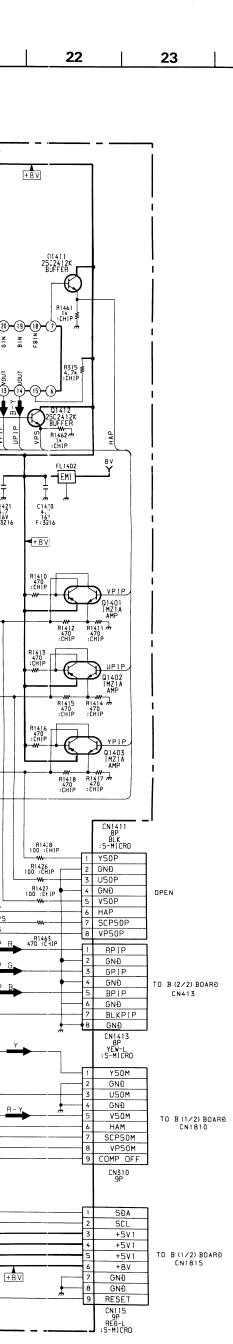
KV-29C3 KV-29C3

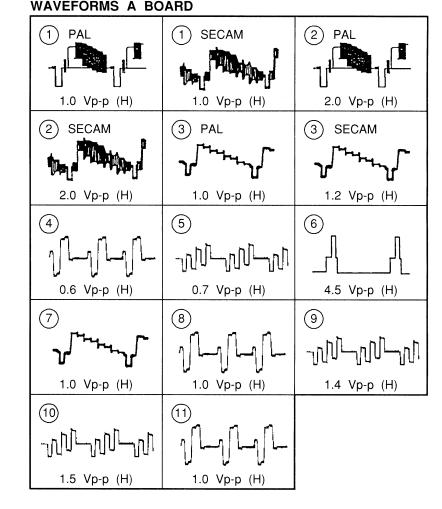
#### A Board < Component Side >











#### A (1/2) BOARD TRANSISTOR VOLTAGE TABLE

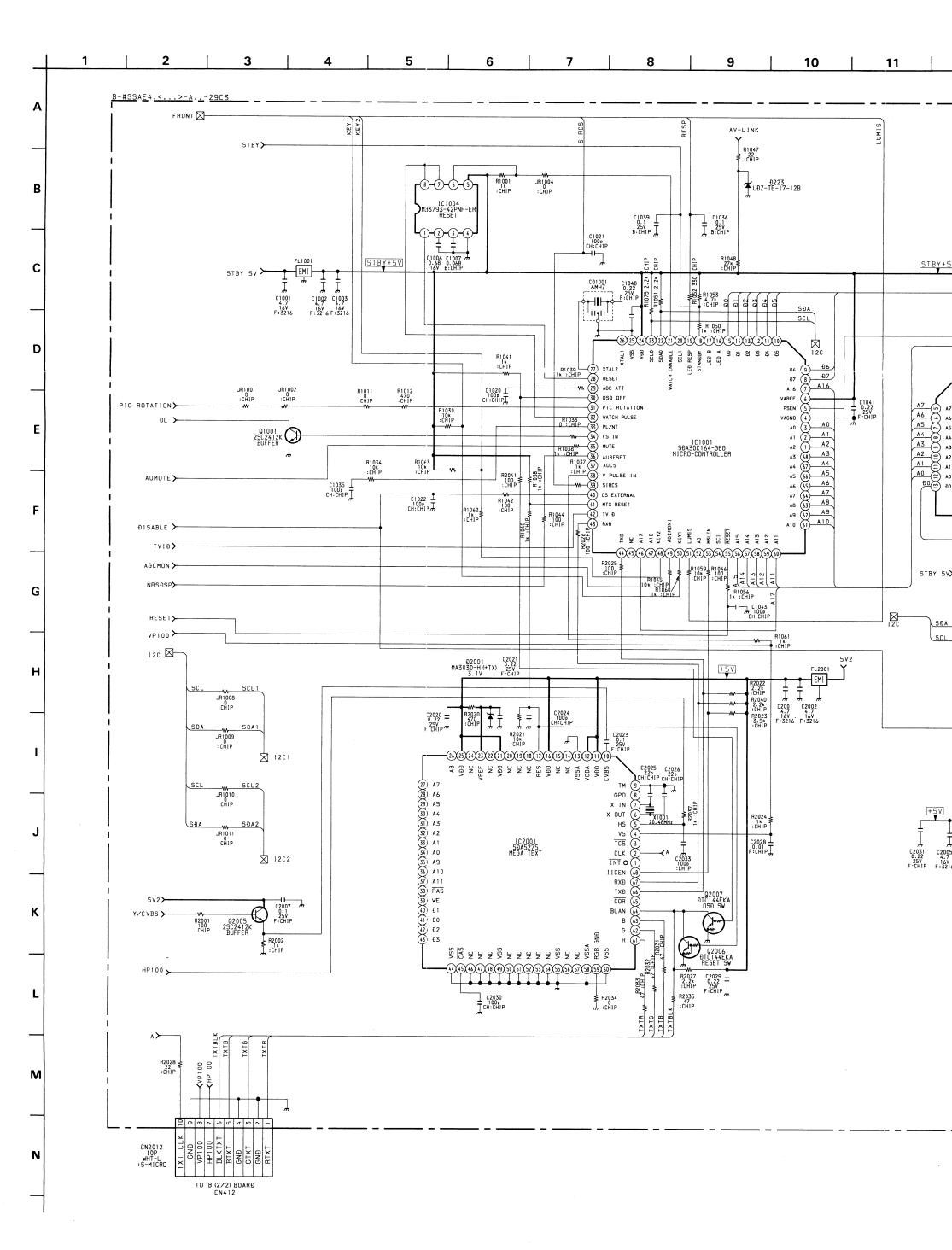
		O LIMO	- 170		
Transistor Voltage Table					
Ref No	B Base	C Collector	E Emitter		
Q102	1.9	4.7	1.3		
Q105	0.08	4.5	0.08		
Q107	4.4	1.7	5.0		
Q108	1.8	4.4	1.2		
Q112	4.3	4.9	5.0		
Q120	4.6	0.1	0.1		
Q301	0.5	8.0	0.4		
Q302	-	8.0	0.3		
Q318	0.1	5.2	0.1		
Q1201	8.6	5.0	9.2		
Q1202	0.7	5.0	9.2		
Q1301	1.9	-	0.2		
Q1302	-	-	0.6		
Q1303	0.8	-	1.5		
Q1304	2.2	-	0.1		
Q1305	2.0	-	0.1		
Q1306	1.7	-	-		
Q1307	-	3.4	0.1		
Q1308	3.5	4.7	2.9		
Q1309	0.9	0.1	1.6		
Q1310	1.0	0.1	1.6		
Q1311	4.5	9.0	3.9		
Q1312	4.5	9.0	-		
Q1313	4.6	0.7	0.1		
Q1314	4.8	4.7	4.3		
Q1404	4.5	7.8	3.8		
Q1411	0.5	8.0	0.6		
Q1412	0.1	8.0	0.1		
Q1201	2.6	8.6	2.1		
Q1202	2.6	8.6	2.1		

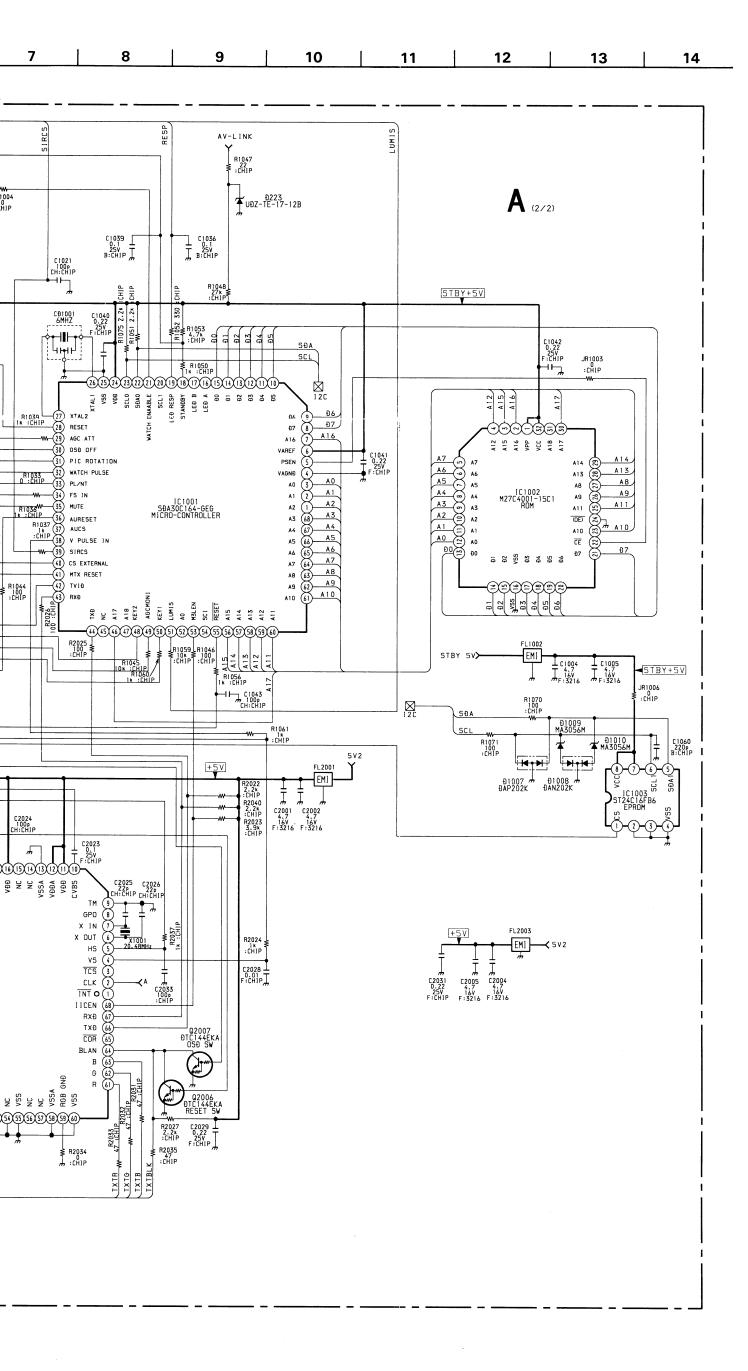
### A (1/2) BOARD IC VOLTAGE TABLE

	IC Voltage Table					
Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V	
	4	0.5		4	4.7	
	5-6	4.7		13	4.7	
	7	2.4		31	4.7	
	8-9	4.7		35	4.7	
	20	2.4		37	2.7	
	24	4.4		39	2.2	
	25	8.8		40	2.7	
	26	4.4	IC1201	41	4.7	
	28	3.8		45	4.8	
	29	2.7		29	2.7	
IC201	30-31	3.8		30-31	3.8	
	39-42	3.8		39-42	3.8	
	44	6.2		44	6.2	
	45	8.0		45	8.0	
	46	7.0		1	5.0	
	47-48	3.8	_	5	0.6	
	50-51	3.7	IC 303	11-12	3.0	
	53-54	3.8		14	1.4	
	56-57	1.2		16	1.2	
	61	4.8		1-2	2.0	
	1-2	2.0	1	3-4	2.4	
	3-4	2.4		5	3.5	
	5	3.0		6	4.0	
	6	4.0		7	7.8	
	7	8.0		8	5.0	
	8	5.0		10	0.8	
	10	0.5	1	12	2.4	
	12	3.2		13-14	2.6	
	13-14	2.6	IC1401	15	8.0	
IC302	15	8.0	1	17	0.3	
	17	0.3		22	7.8	
	19	1.6	1	24	3.6	
	21	1.0	1	26	3.3	
	23-24	4.0	-	28	3.5	
	26	3.7		29	4.3	
	28	3.5	1	30	2.6	
	29	5.0	1	31	2.6	
ŀ	30	2.5	1 1	32	3.8	
	31	2.5				
	32	2.0	-			

# A BOARD \* MARK

Model Ref. No.	29C3A	29C3B	29C3D	29C3E	29C3K	29C3R
C357	39PF	39PF	39PF	_	39PF	39PF
CF200	6.5MHz	6.5MHz	6.5MHz	_	6.5MHz	6.5MHz
IC201	MSP3400C-PP-C6-T-ND	MSP34103-PS-F7-T-ND	MSP3400C-PP-C6-T-ND	MSP3410B-PS-F7-T-ND	MSP3400C-PP-C6-T-ND	MSP3400C-PP-C6-T-ND
L321	10UH	: OUH	10UH	_	10UH	10UH
TU101	TUVIF (AEP)	TUVIF (FR)	TUVIF (AEP)	TUVIF (AEP)	TUVIF (AEP)	TUVIF (AEP)



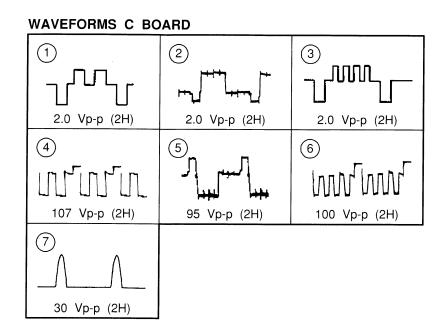


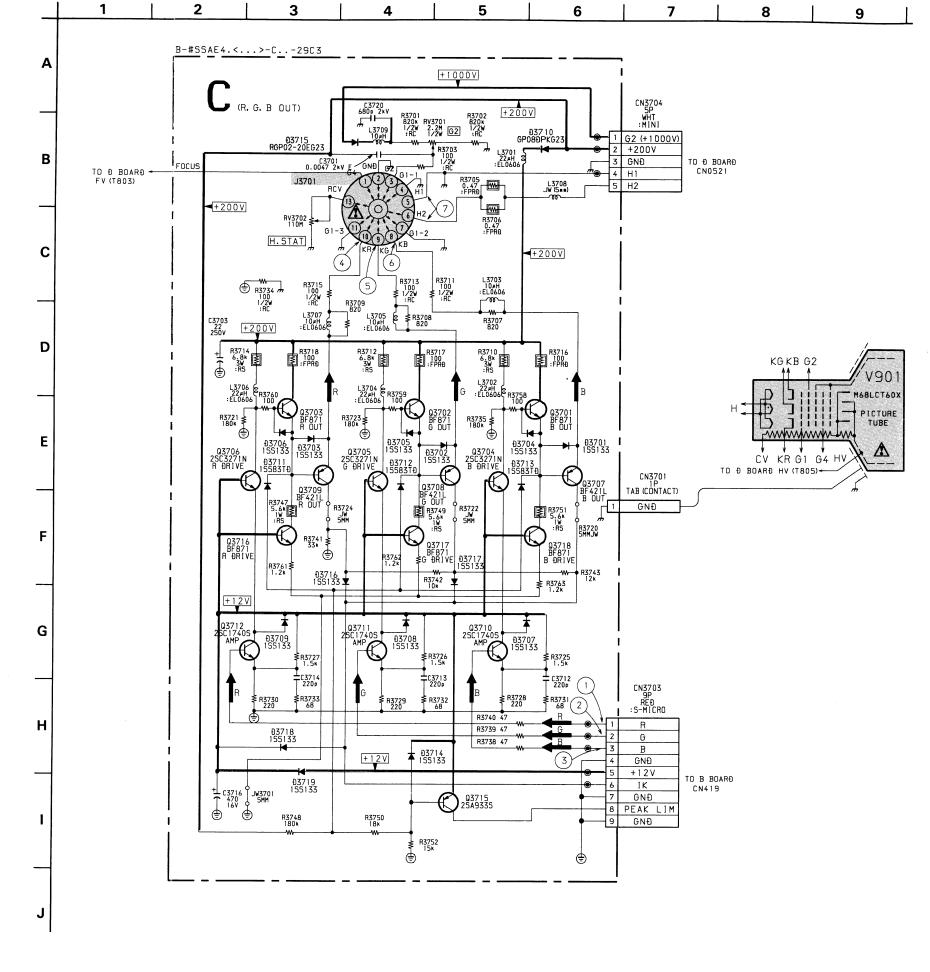
#### A (2/2) BOARD IC VOLTAGE TABLE

IC Voltage Table					
Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V
	1-5	4.6		1	4.8
	7-8	4.6		2	1.1
	10	4.6		4	0.9
	17	4.6		5	0.3
	23	4.6		6-7	2.4
IC101	29	4.6	IC1101	8	1.4
	31	4.6		9	4.7
	34	4.6		10	1.7
	36	4.6		11	1.5
	38	9.0		16	4.0
	40-47	4.6		18-20	4.7
	5	2.4		21	2.5
	6	4.8	1	22	2.3
	19	3.6		2	0.4
	20	0.1		5	0.3
	24	4.8		6-7	1.6
	26	2.1		8	4.0
	27	2.3		10	1.0
	28	4.6	IC2001	11-12	4.7
	30	0.1	102001	16	4.7
	31-32	2.4		21	4.7
	33	4.8		23	2.9
IČ1001	36	4.1		25	4.7
101001	38	0.1		66	4.7
	39	0.6		68	4.7
	40	4.8			
	41	0.1			
	42	4.8			
	43	4.4			
	44	4.1			
	48	4.8			
	49	2.2			
	50	4.8			
	52	4.8			
	54	4.8			

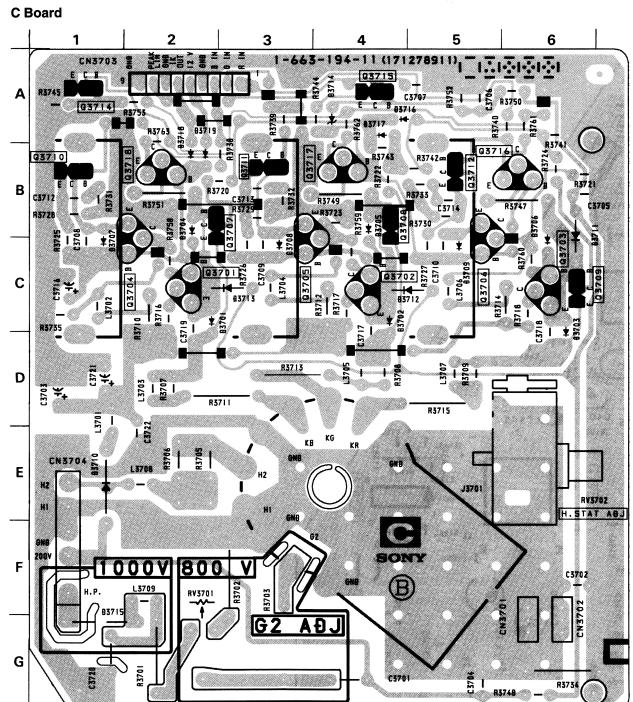
#### A (2/2) BOARD TRANSISTOR VOLTAGE TABLE

Transistor Voltage Table					
Ref No	B Base	C · Collector	E Emitter		
Q1001	0.1	0.7	0.1		
Q1004	0.1	0.7	-		
Q1101	3.3	5.0	2.6		









C BOA	RD
TRAN	SISTOR
Q3701	C-2
Q3702	C-4
Q3703	C-6
Q3704	C-2
Q3705	C-3
Q3706	C-5
Q3707	B-3
Q3708	B-4
Q3709	C-6
Q3710	B-1
Q3711	B-3
Q3712	B-5
Q3715	A-4
Q3716	B-6
Q3717	B-4
Q3718	B-2
DIC	DDE
D3701	C-2
D3702	C-4
D3703	D-6
D3704	B-2
D3705	B-4
D3706	B-6
D3707	C-1
D3708	C-3
D3709	C-5
D3710	E-1
D3711	B-6
D3712	C-5
D3713	C-3
D3714	A-4
D3715	G-1
D3716	A-5
D3717	A-4
D3718	A-2
D3719	A-2
VARI	ABLE
RESI	STOR
RV3701	F-2
1	

RV3702 E-6

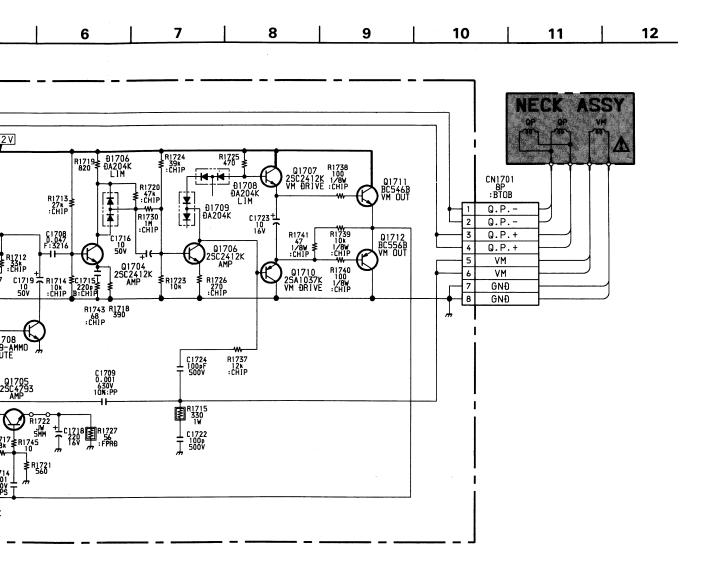
A	B-#SSAE4.<>-VM28WS4
_	(+ 1 2 V)
В	CN1830 7P BLK :S-MICRO  +135V 1 Q.P+ 2    CN1830
$\dashv$	Q. P+ 2 100 AMP 1130 CHIP 1130 CHIP
С	CN3133 VM IN 5 # CHIP
	R1743 R1718 68 390 :CHIP
D	R1705 R1710 Q1703 2874733
$\dashv$	ISAM : FPRO SMM AND : FPRO R17222 R17222
E	C1710 C1712 C1714 \$81721 560 0 0.01
$\dashv$	V M (VM AMP, Q.P) #1704 #1705 STAB STAB
F	

5

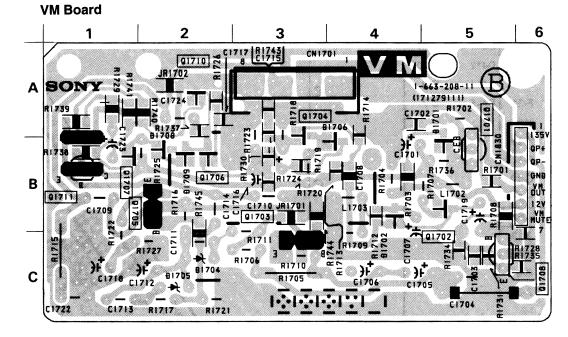
6

VM BOARD TRANSISTOR VOLTAGE TABLE

Transistor Voltage Table					
Ref No	B Base	C Collector	E Emitter		
Q1701	0.8	0.7	2.1		
Q1702	1.8	0.2	1.9		
Q1703	24.0	13.3	24.0		
Q1704	0.5	1.2	0.4		
Q1705	0.1	12.3	-		
Q1706	0.4	1.1	0.3		
Q1707	1.5	2.1	1.4		
Q1708	-		-		
Q1710	1.1	- •	1.2		
Q1711	1.4	2.1	1.3		
Q1712	1.3	1.2	-		





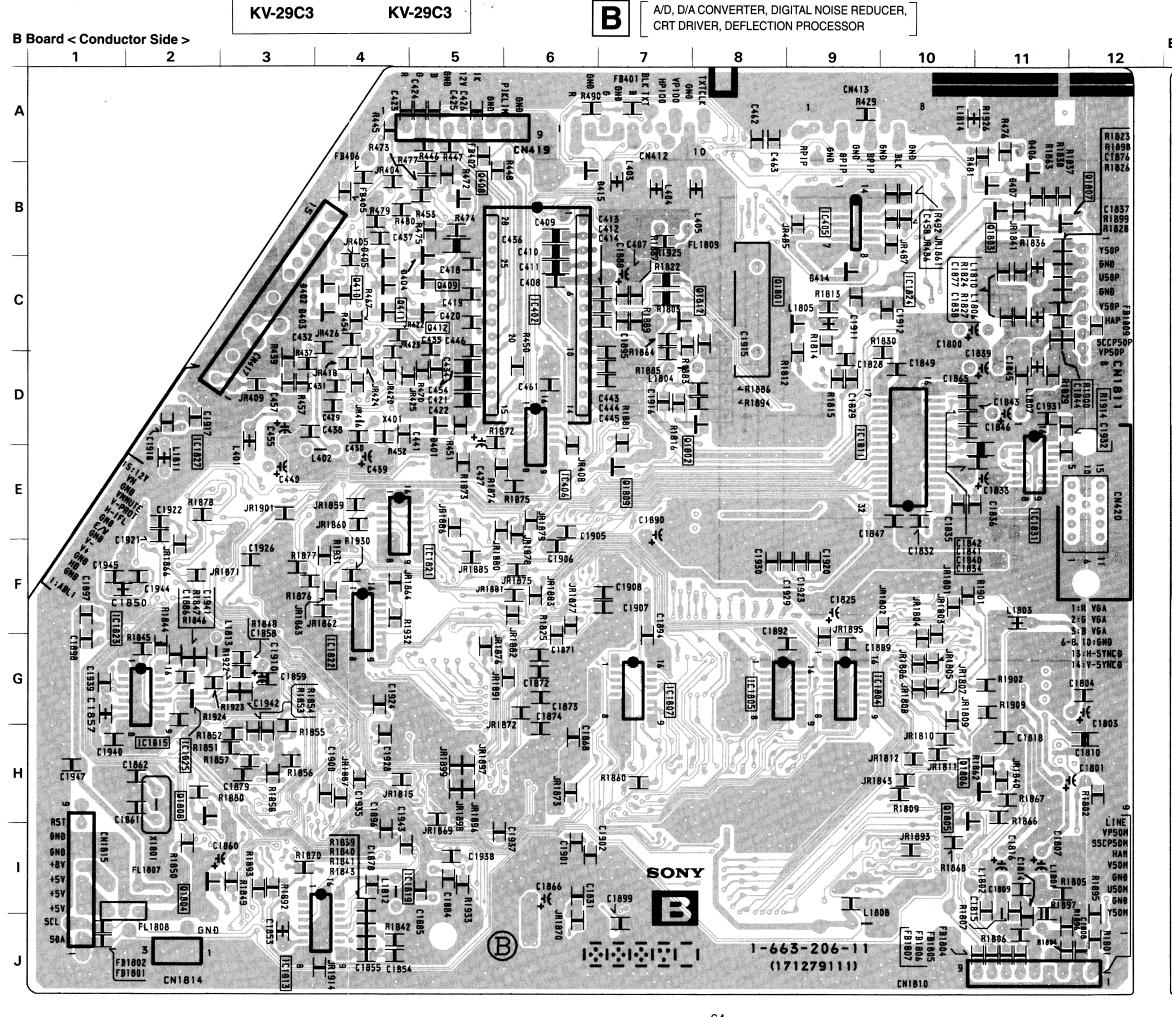


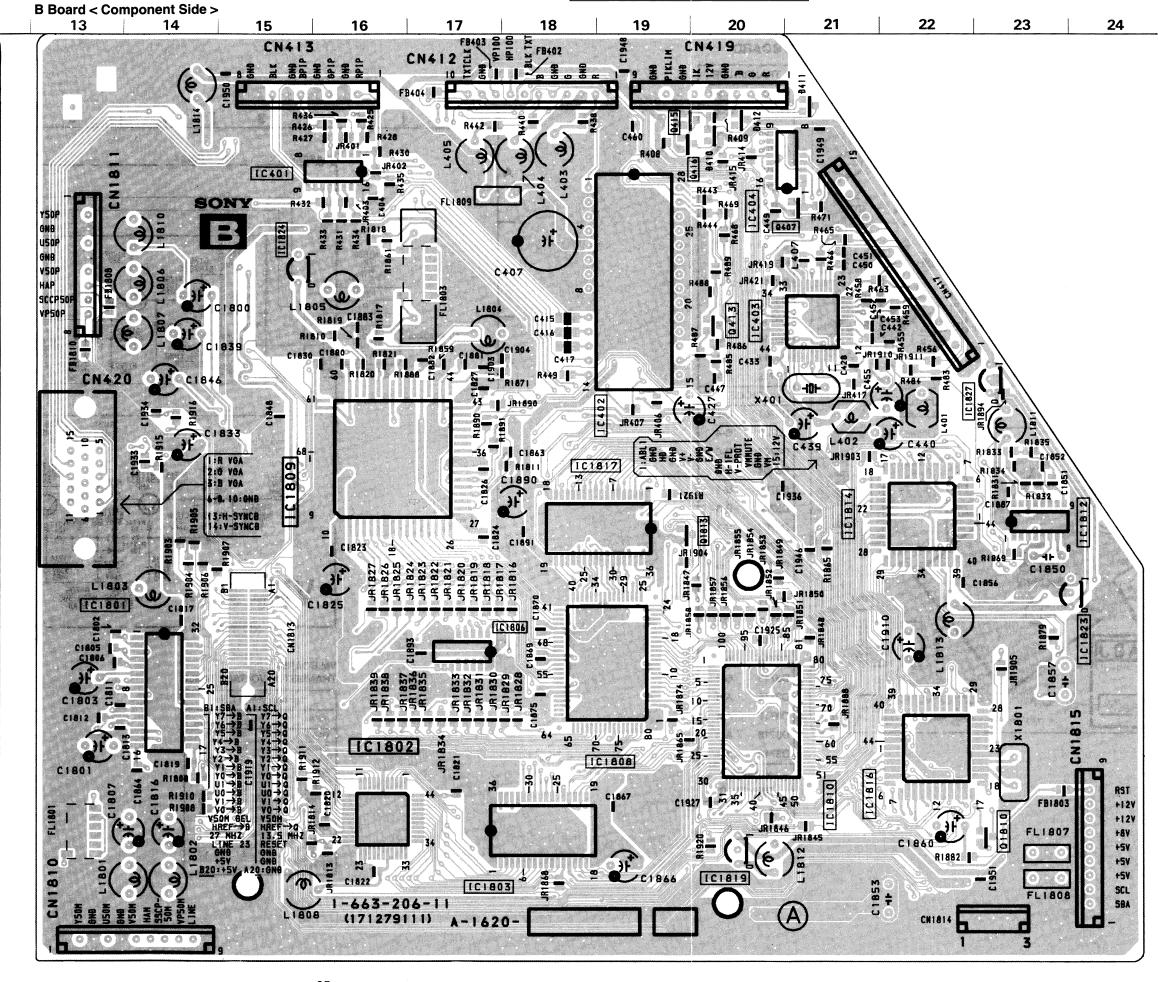
## **VM BOARD**

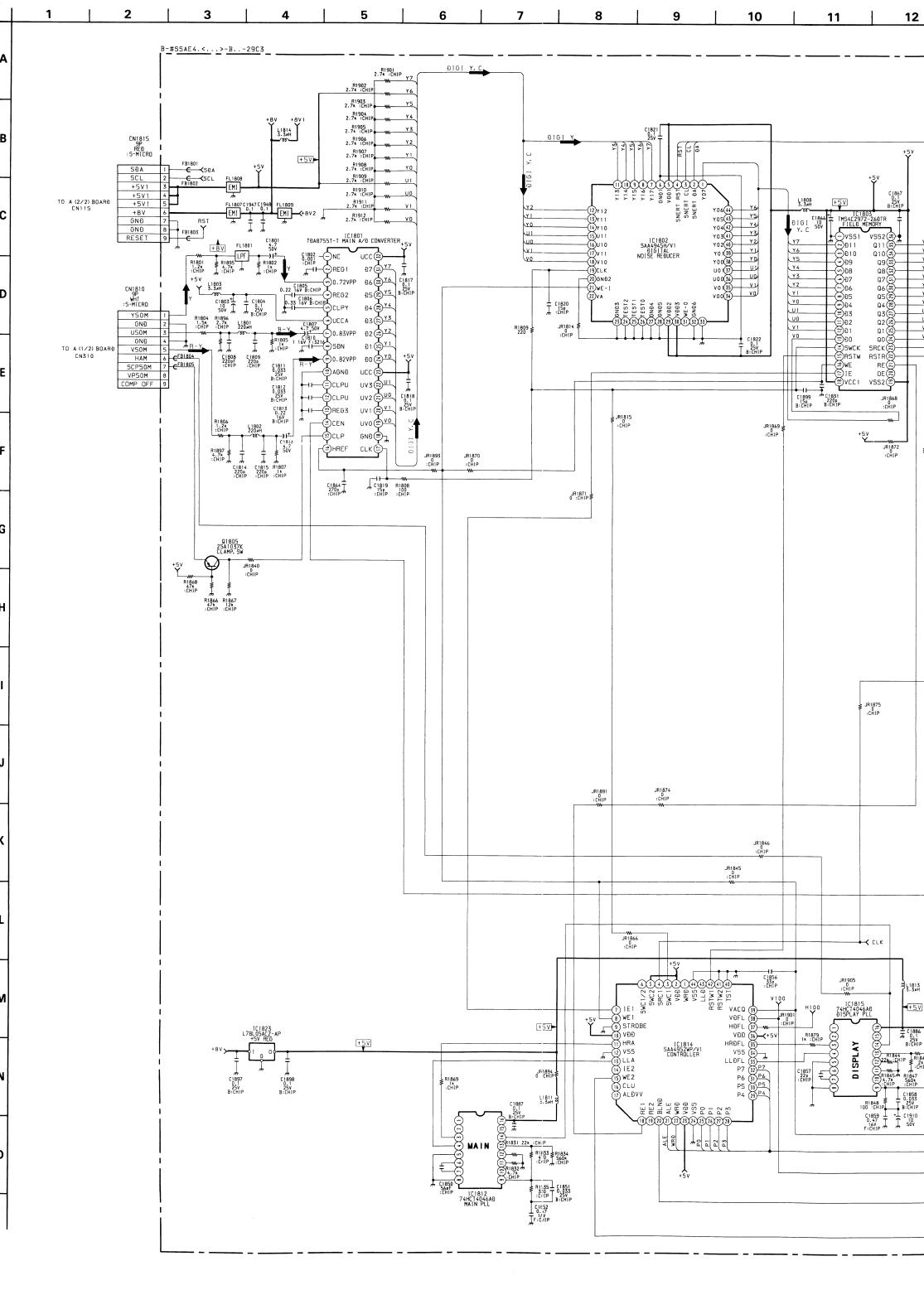
TRANSISTOR				
Q1701	A-5			
Q1702	C-5			
Q1703	B-3			
Q1704	A-3			
Q1705	B-2	١		
Q1706	B-2	l		
Q1707	B-1			
Q1708	C-6			
Q1710	A-2	١		
Q1711	B-1			
Q1712	A-1			
DIODE				
D1701	A-5			
D1702	C-4	l		
D1704	C-2	١		
D1705	C-2			
D1706	A-4			
D1708	B-2			
D1709	B-2			

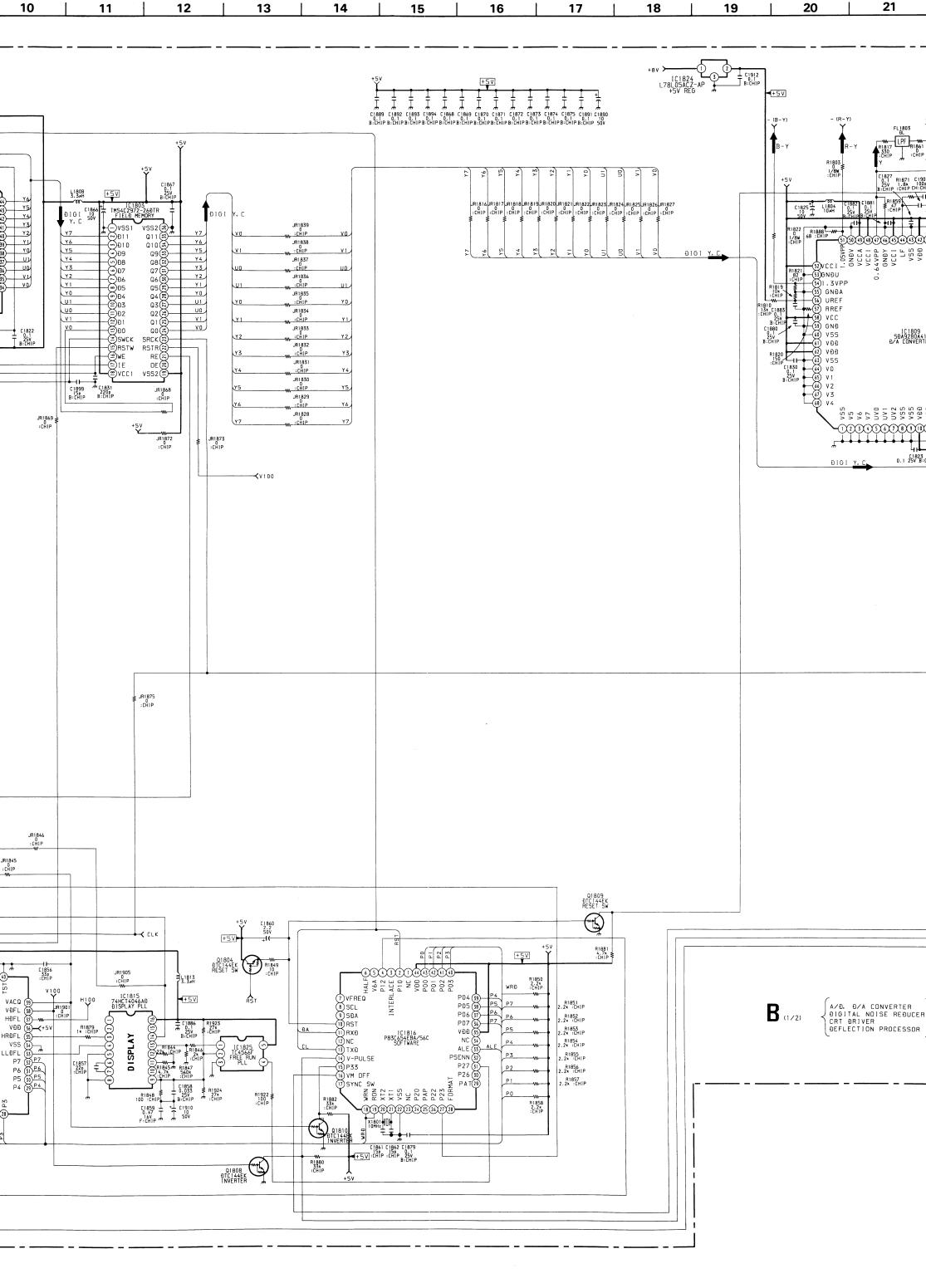
# **B BOARD**

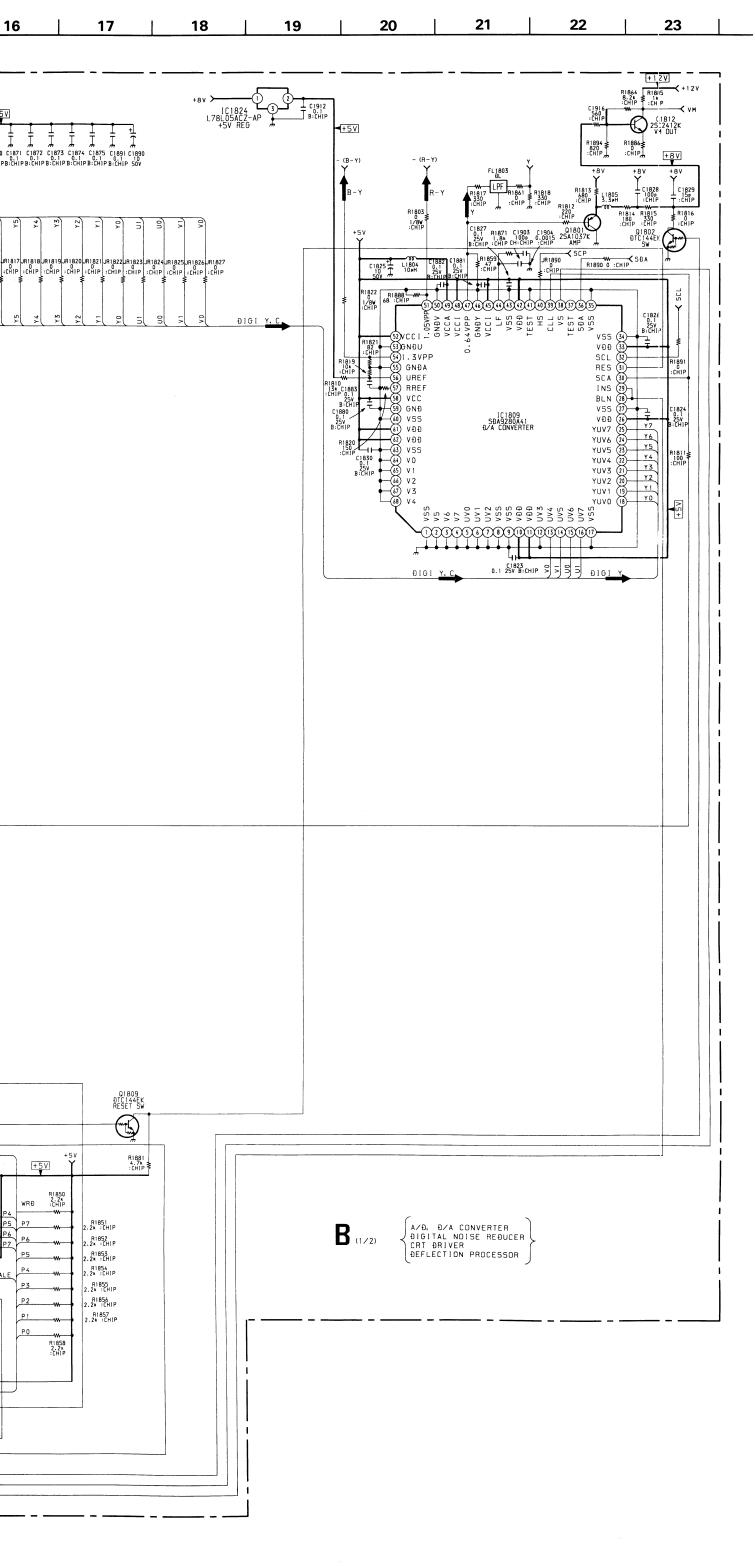
. 10		DIC	DDE		
IC402	C-6	D401	D-5		
IC403	D-20	D402	C-3		
IC1801	G-13	D403	C-3		
IC1802	H-16	D410	B-20		
IC1803	I-17	D411	A-21		
IC1809	E-15	D412	A-20		
IC1812	F-24	D414	C-9		
IC1814	F-21	D415	B-7 <sup>-</sup>		
IC1815	H-2				
IC1816	H-22				
IC1823	F-1				
IC1824	C-10				
IC1825	H-2				
TRANSI	STOR				
Q415	A-19				
Q416	B-20				
Q1801	C-8				
Q1802	D-8				
Q1804	I-2				
Q1805	H-10				
Q1808	H-2				
Q1809	E-7				
Q1810	I-23				
Q1812	C-8				











B BOARD TRANSISTOR VOLTAGE TABLE

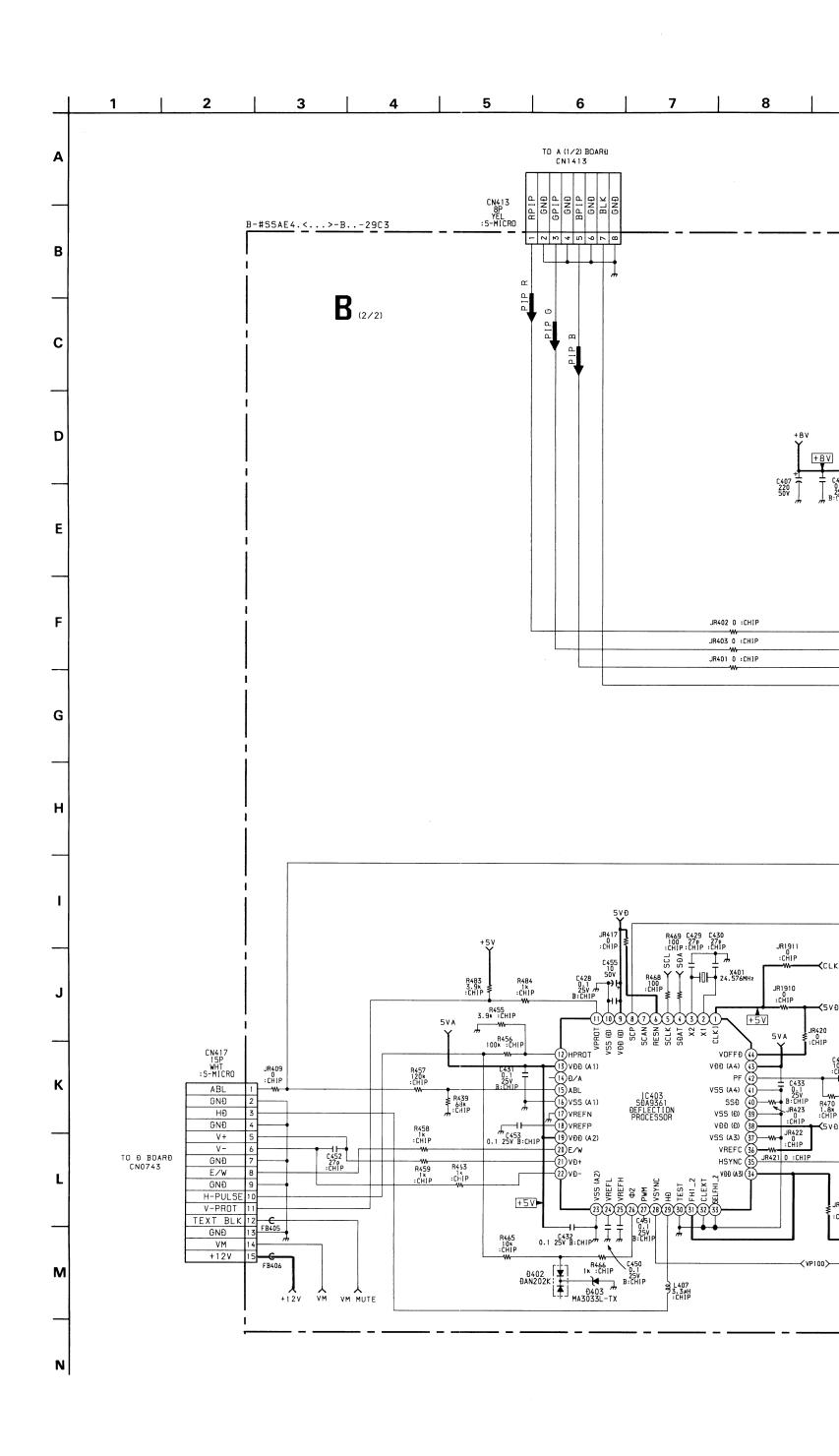
Transistor Voltage Table					
Ref No	B Base	C Collector	E Emitter		
Q411	0.1	4.8	4.8		
Q412	0.1	4.8	4.8		
Q415	1.8	0.1	-		
Q416	0.1	5.6	-		
Q1801	0.1	-	0.9		
Q1802	4.0	0.1	0.1		
Q1804	0.3	4.8	0.1		
Q1805	2.5	1.3	0.7		
Q1807	2.5	1.3	0.7		
Q1808	0.1	4.7	0.1		
Q1809	0.1	0.1	0.1		
Q1810	0.1	4.8	-		
Q1812	0.5	10.5	-		
Q1813	0.1	3.7	0.1		

#### B (1/2) BOARD IC VOLTAGE TABLE

	IC Volta	ge Table			
Ref No	Pin No	Voltage (V)			
	3-4	2.4			
	6-7	0.7			
	9	4.6			
IC1812	11-13	4.7			
	14	0.3			
	16	5.0			
	3-4	2.4			
	6-7	0.7			
IC1813	9	4.6			
101013	11-13	4.7			
	14	0.3			
	16	5.0			
	1	5.0			
	2	2.3			
	3-4	2.5			
	6-7	0.8			
IC1815	9-11	3.0			
10 1815	12	4.5			
i	13	3.0			
	14	0.4			
	15	0.2			
	16	5.2			
	2	2.5			
	4-5	2.3			
101001	12	2.0			
IC1821	14	2.0			
	15	2.6			
	16	8.0			
	2	2.9			
	4-5	2.6			
IC1822	12	2.3			
101022	14	2.1			
	15	2.8			
	16	8.0			

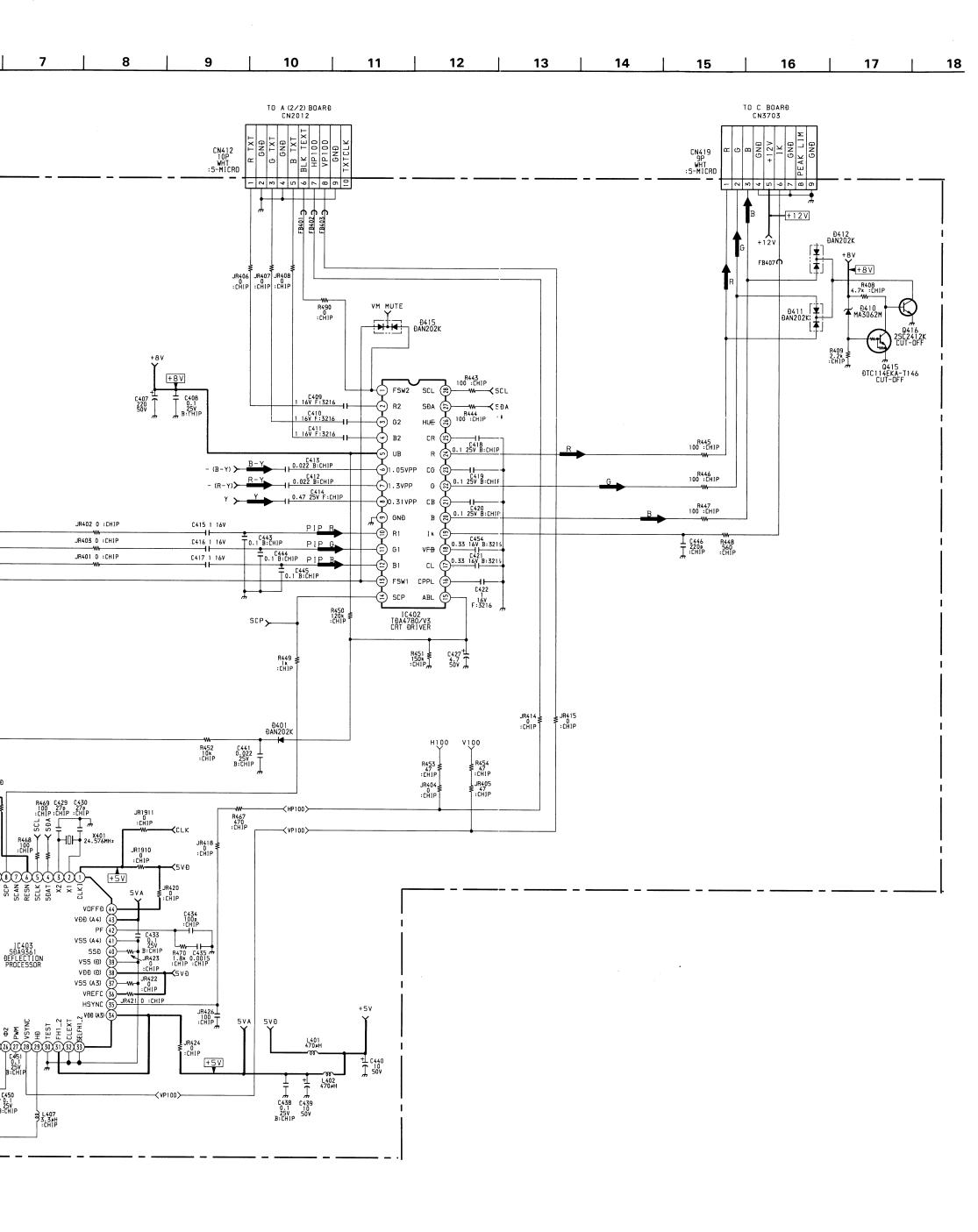
# B (2/2) BOARD IC VOLTAGE TABLE

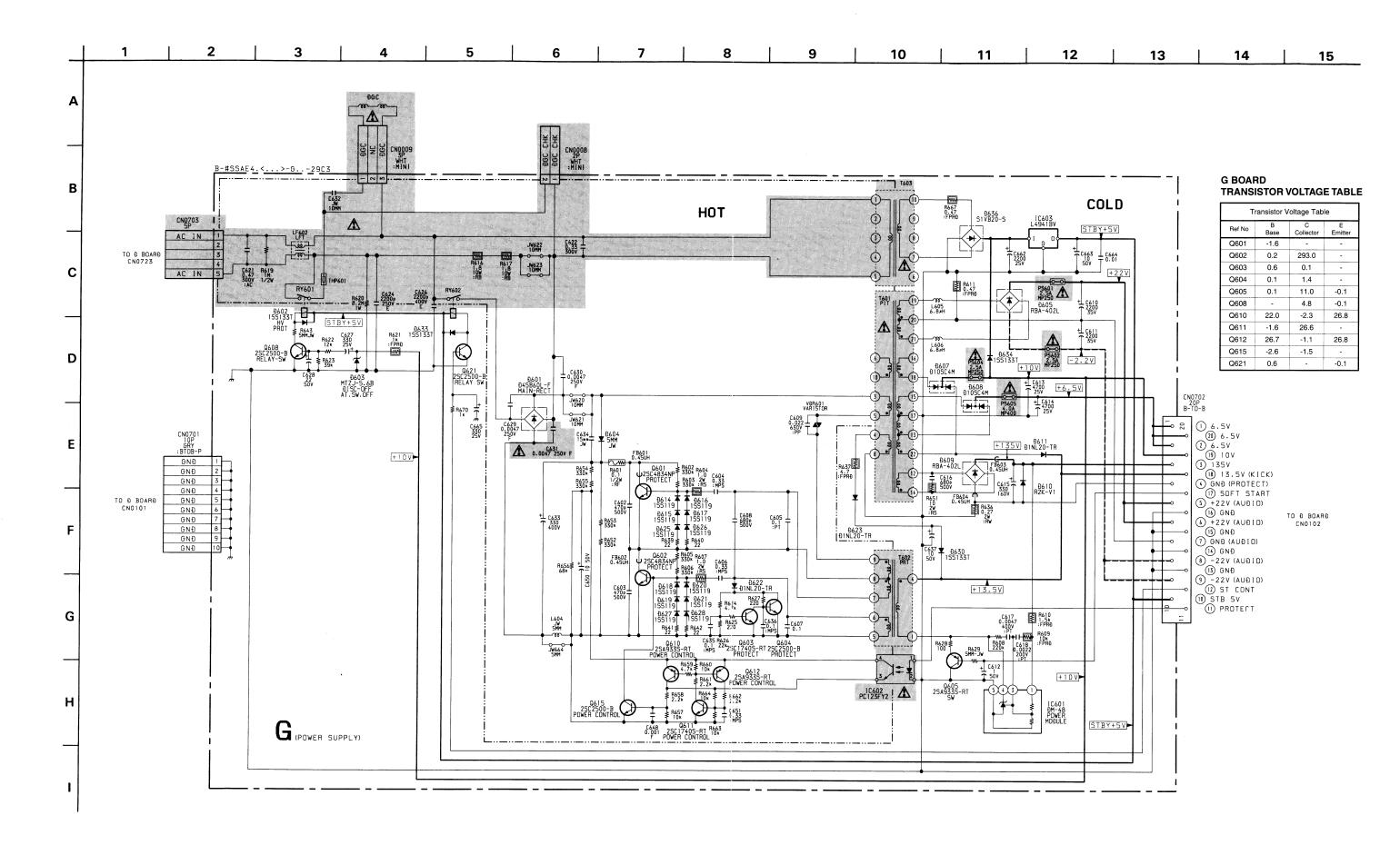
IC Voltage Table								
Ref No								
	2-4	5.0						
	5	7.8						
	6-7	4.0						
	8	3.7						
	10-12	5.0						
	14	0.7						
	16	4.7						
	17	5.1						
	18	1.8						
IC402	19	7.5						
	20	2.5						
	21	3.3						
	22	2.8						
	23	3.3						
	24	2.9						
	25	3.3						
	27	4.0						
	28	3.8						
	5	3.2						
IC405	9	3.2						
	13-14	3.2						
IC406	16	4.8						



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**–** 72 **–** 

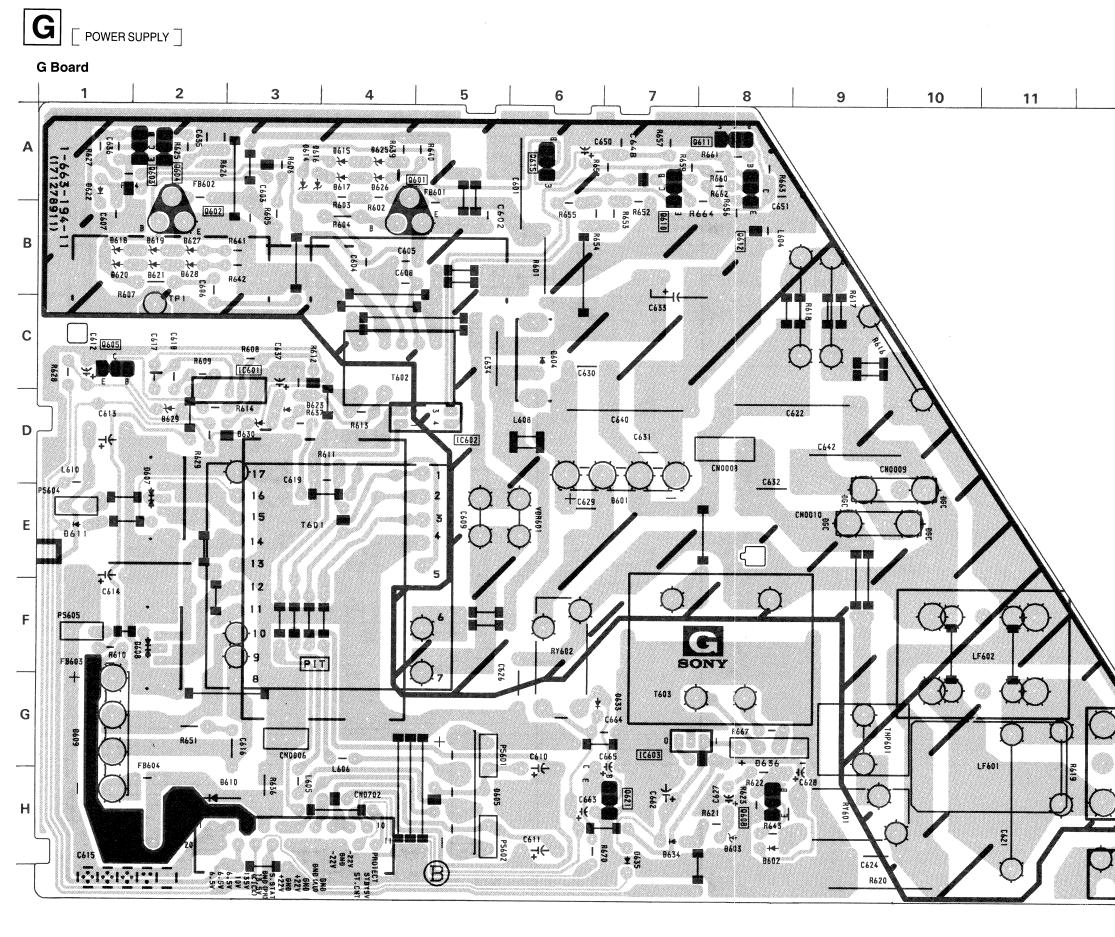






#### NOTE:

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.





### NOTE:

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.



C-3

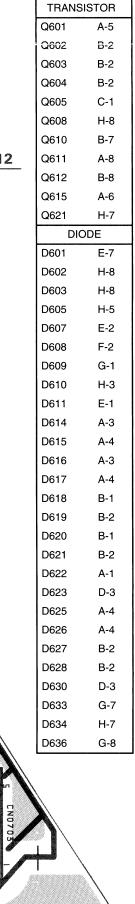
D-5

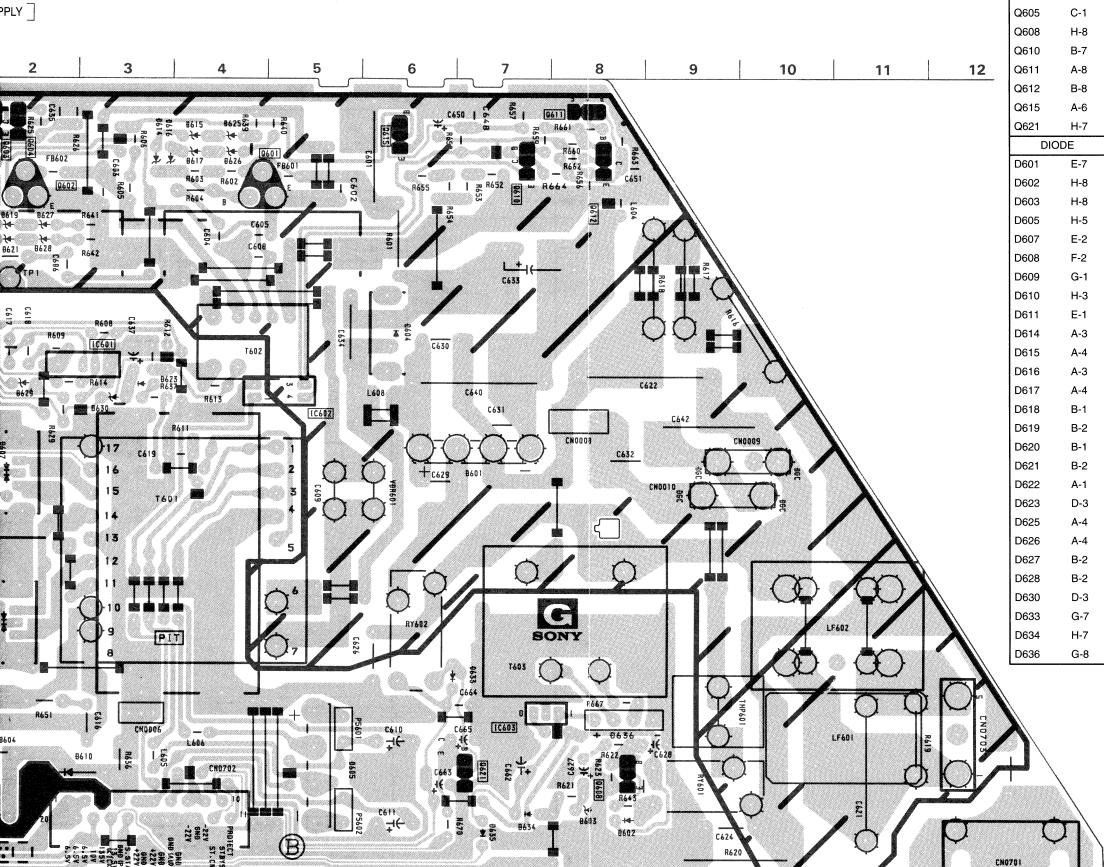
G-7

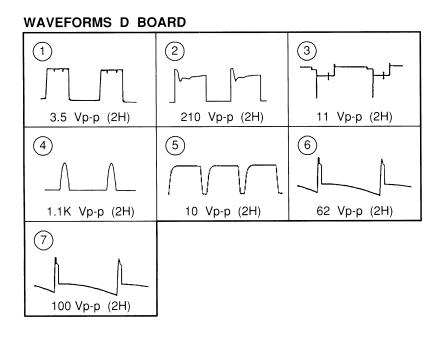
IC601

IC602

IC603

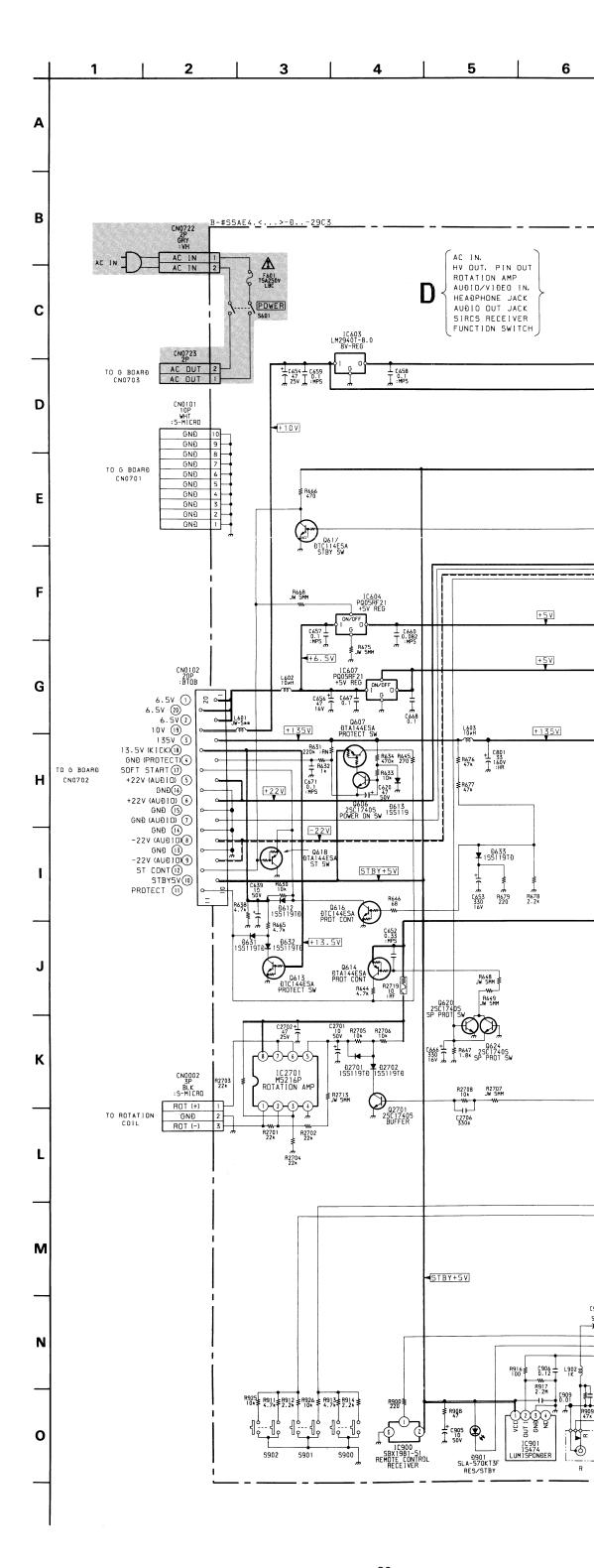


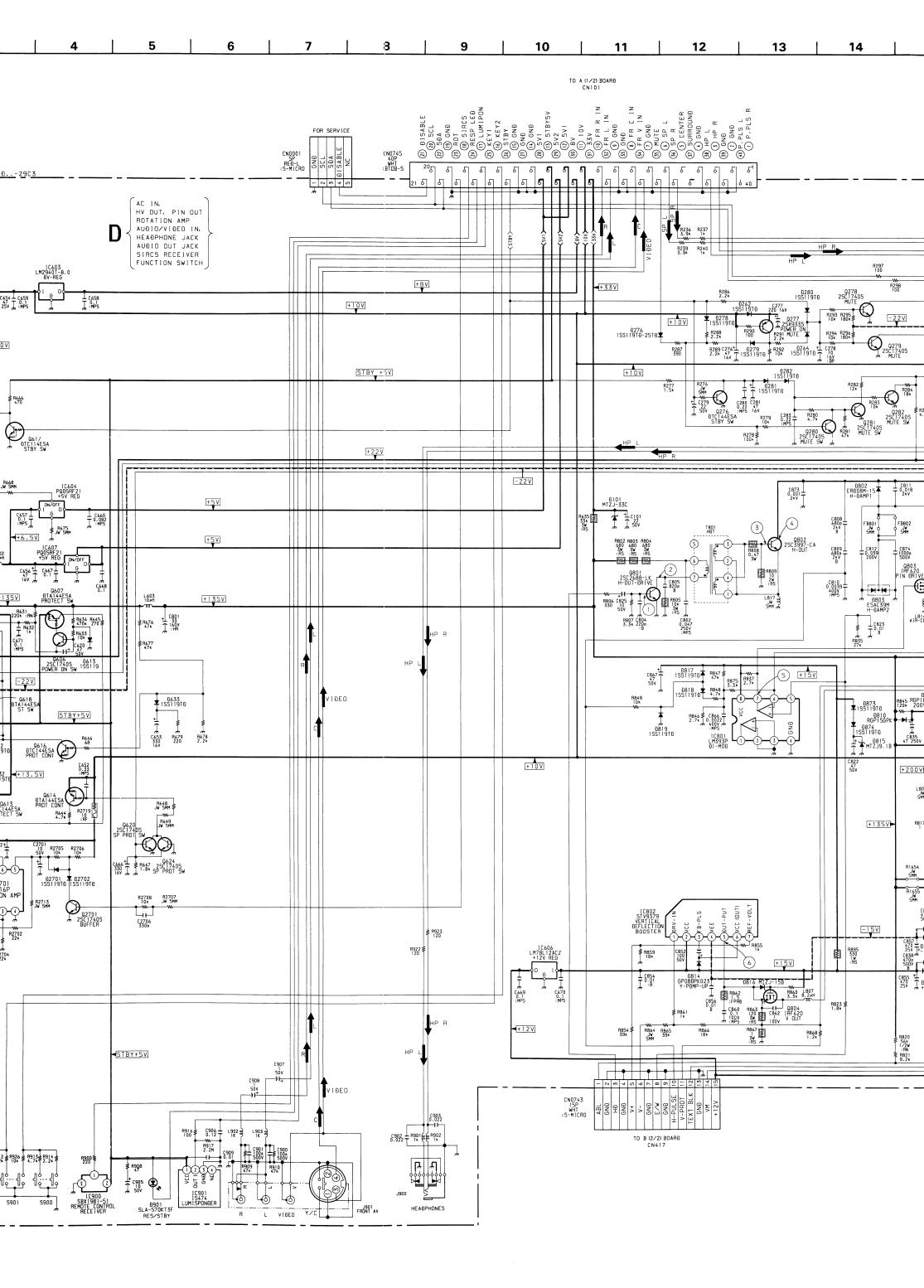




#### D BOARD TRANSISTOR VOLTAGE TABLE

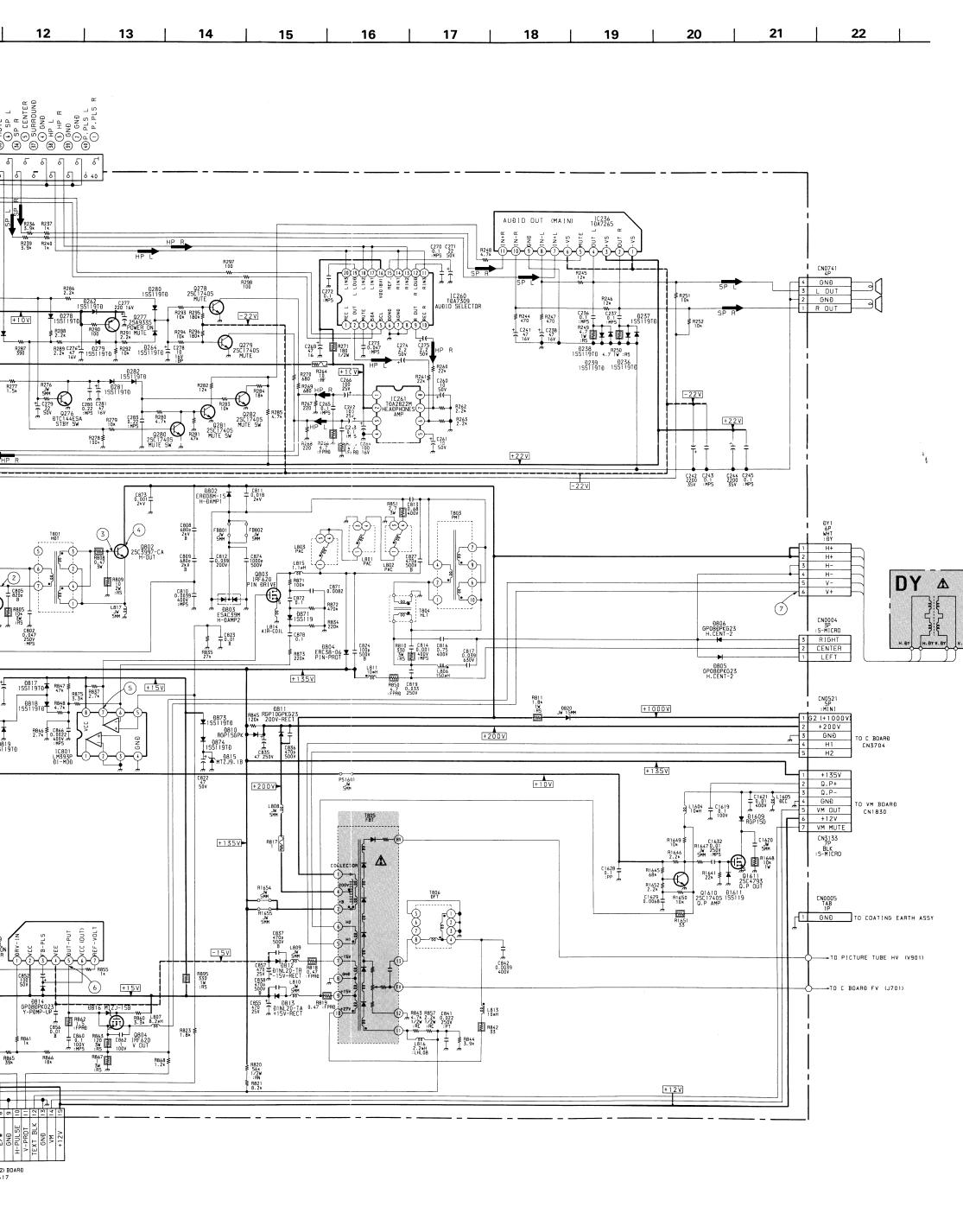
Transistor Voltage Table								
Ref No	B Base	C Collector	E Emitter					
Q276	0.7	4.0	-					
Q277	10.0	-	9.7					
Q278	-1.3	-	-					
Q279	-1.3	-	-1.3					
Q280	0.4	0.7	-					
Q281	0.7	-	-					
Q282	0.7	-	-					
Q801	-1.0	101.0	-					
Q802	-	136.0	-					
Q803	9.0	15.0	-					
Q804	11.3	0.1	-1.3					
Q606	0.5	4.8	0.3					
Q607	4.8	1.6	4.8					
Q613	13.5	-	-					
Q614	10.0	9.0	10.0					
Q616	0.7	-	-					
Q617	0.7	3.5	-					
Q618	3.5	-	-					
Q620	-	10.0	-					
Q624	-	10.0	-					
Q2701	-	2.3	-					
Q1610	-0.5	2.2	-					
Q1611	0.2	43.4	-					



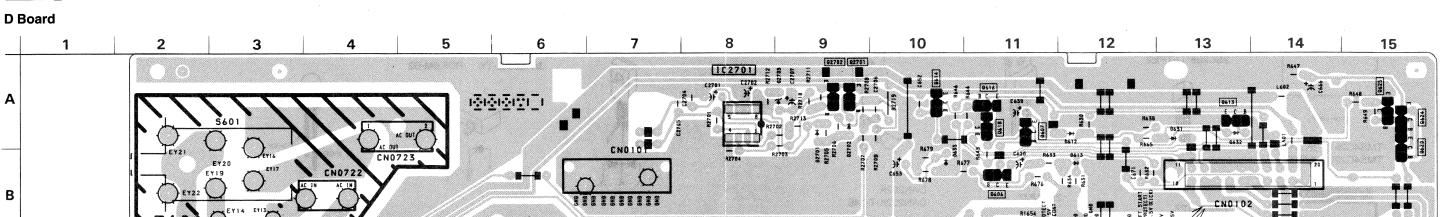


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AC IN, HV OUT, PIN OUT, ROTATION AMP, AUDIO/VIDEO IN, HEADPHONE JACK, SIRCS RECEIVER, FUNCTION SWITCH



IC606 IC607 IC801 IC802 IC900 IC901 IC2701

D BOA

IC236 IC260 IC261 IC603 IC604

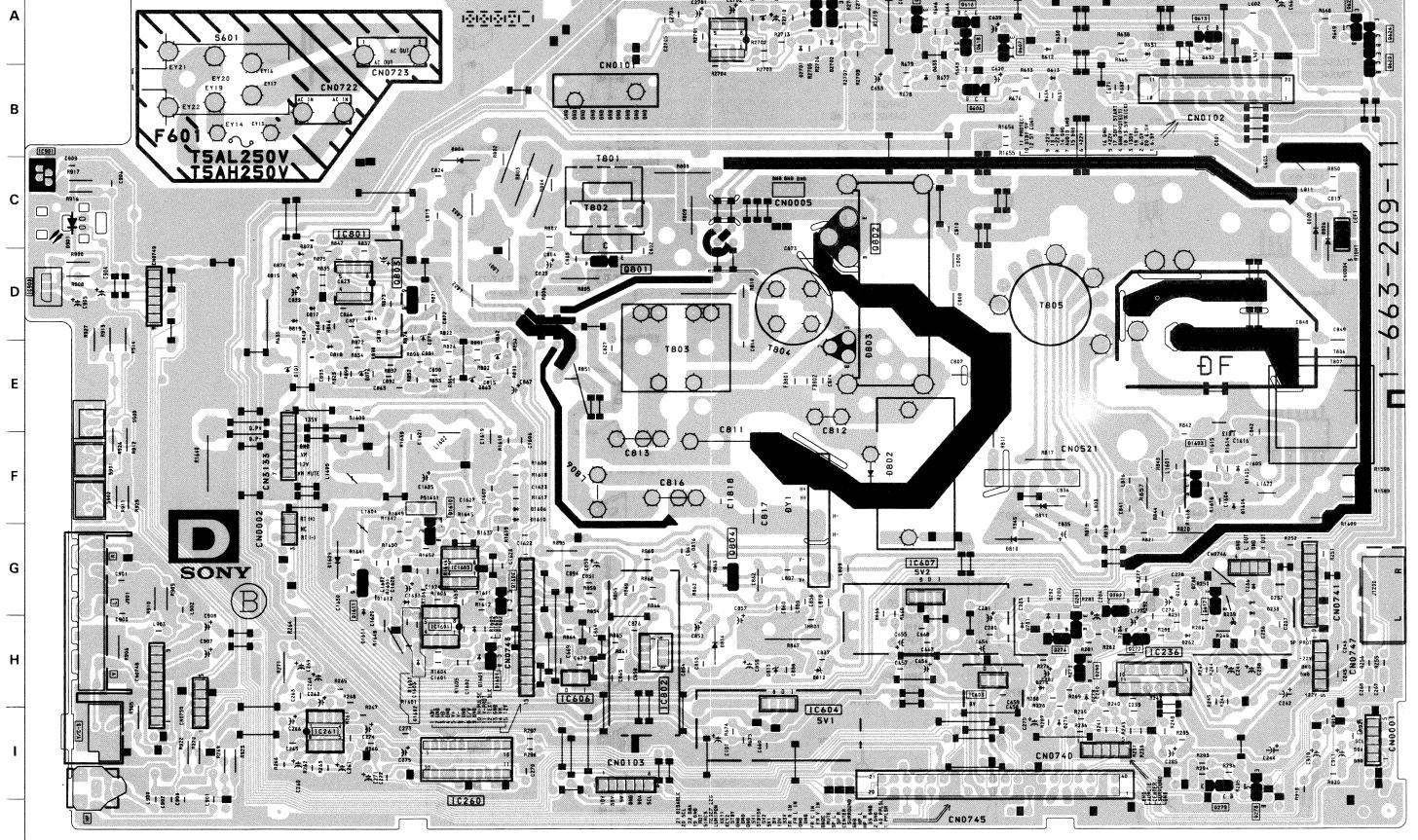
TRAN Q276 Q277 Q278 Q279 Q280 Q281 Q282 Q606 Q607

Q613 Q614 Q616 Q617 Q618 Q620

> Q624 Q801 Q802 Q803 Q804 Q1610 Q1611

Q2701

**—** 84 **—** 



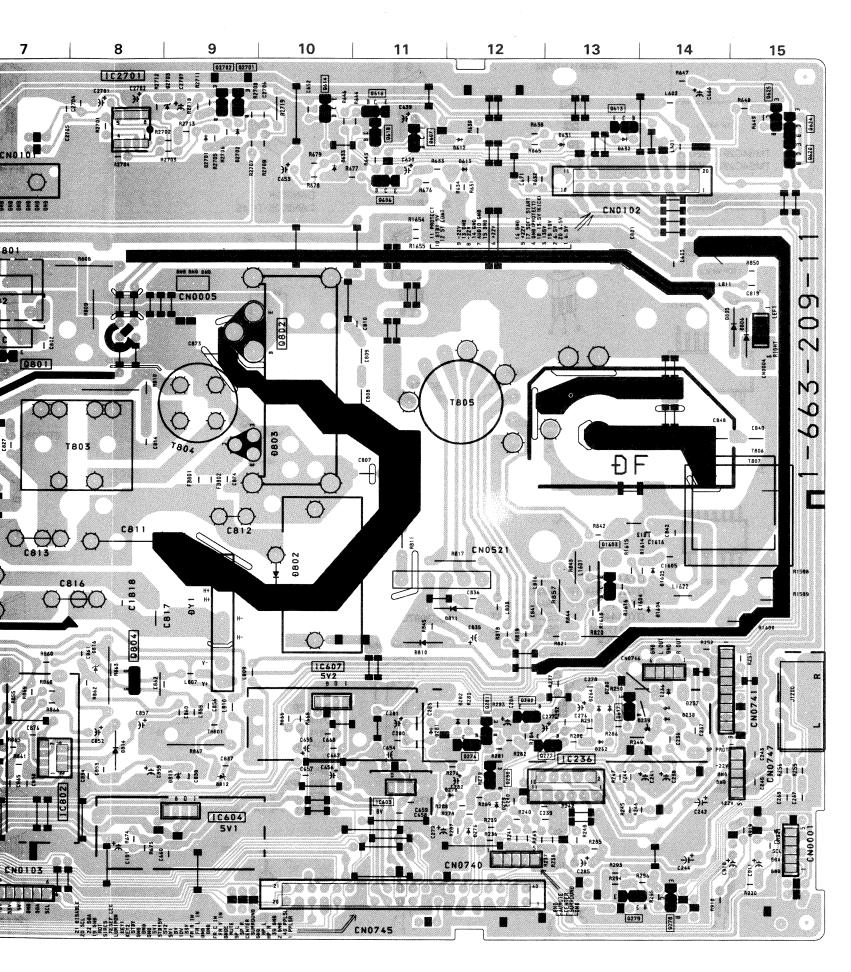


NOTE:

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

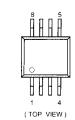
## D BOARD

D BOAF	KD						
IC	)	DIODE					
IC236	H-13	D101	E-3				
IC260	I-5	D236	G-14				
IC261	I-4	D237	G-14				
IC603	H-11	D238	G-14				
IC604	H-9	D239	G-14				
IC606	H-7	D262	H-13				
IC607	G-10	D264	G-13				
IC801	C-4	D276	I-12				
IC802	H-8	D278	H-12				
IC900	D-1	D279	H-12				
IC901	C-1	D280	G-13				
IC2701	A-8	D281	H-12				
TRANS	SISTOR	D282	G-12				
Q276	H12	D612	A-12				
Q277	H-13	D613	B-12				
Q278	I-14	D631	A-13				
Q279	I-14	D632	A-14				
Q280	H-12	D633	B-11				
Q281	G-12	D802	F-10				
Q282	G-13	D803	E-10				
Q606	B-11	D804	B-5				
Q607	A-11	D805	C-15				
Q613	A-13	D806	C-15				
Q614	A-10	D810	G-11				
Q616	A-11	D811	F-12				
Q617	G-13	D812	H-9				
Q618	A-11	D813	H-9				
Q620	A-15	D814	H-8				
Q624	A-15	D815	D-3				
Q801	D-7	D816	G-8				
Q802	C-10	D817	D-4				
Q803	D-5	D818	E-4				
Q804	G-8	D819	D-3				
Q1610	F-5	D873	D-4				
Q1611	G-4	D874	D-3				
Q2701	A-9	D901	C-1				
		D1609	G-4				
		D1611	H-4				
		D2701	A-9				
		D2702	A-9				

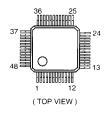


#### 5-4. SEMICONDUCTORS

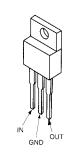
BA7046F BA7046F-T1 MB3793-42PNF MB3793-42PNF-ER



CXA1855Q-T6



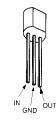
LM2940CT-9.0 LM2940T-8.0 LM2940T-9.0 L4941BV TEA7605



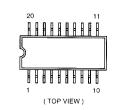
LM393P M5216P ST24C16FB6 TDA2822M UPC393C



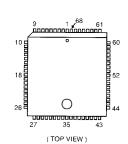
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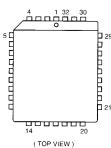
MC74F240DWR2

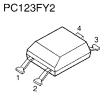


MSP3400C-PS-C6-T-ND MSP3410B-PS-F7-T-ND SDA30C164-GEG SDA5273-C126-GEG



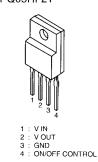
M27C4001-15C1 M27C4001-15C1-AE401



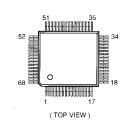


PQ05RF21

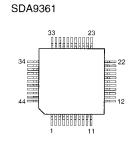
PC123F2



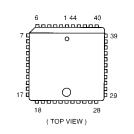
P83C654EBA/560 SDA9280A41



SAA4945H/V1



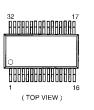
SAA4952WP/V1

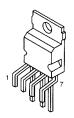


SBX1981-51



SDA9288X-A141 TDA8755T-T

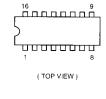




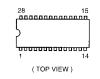
TC4S66F TC4S66F-TE85L



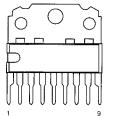
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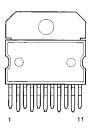
TDA4780/V3



TDA6111Q TDA6111Q/N4

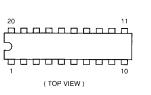


TDA7265

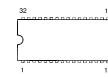


STV9379

TDA7309

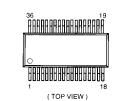


TDA9143/N2

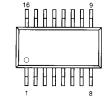


(TOP VIEW)

TMS4C2972-26DTR TMS4C2972-28DTR



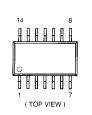
74HCT4046AD/S470



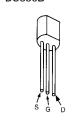
(TOP VIEW)



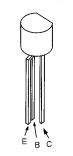
74LVC08D



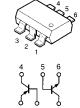
BC546B BC556B



BF199 BF199-AMMO







IRF620

2SA1837

2SC2611

2SC3997CA

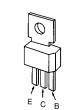
MARKING SIDE VIEW

2SC2688-LK

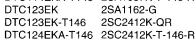




BF871-127



DTA144EK-T146 DTC114EKA-T146 2SA1037K-T-146-R





DTC144EK

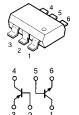
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DTC144EKA-T146

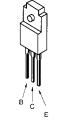
DTA144ESA 2SA933AS-RT DTA144ESA-TP 2SA933AS-QRT DTC114ESA-TP 2SA933S-RT DTC144ESA-TP 2SC1740S-RT 2SA1175-HFE 2SC2785-HFE



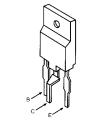
IMZ1A-T109



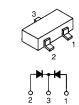
2SC4793



2SC4834NP-F09



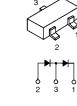
DAN202K DAN202K-T-146



DAP202K DAP202K-T-146



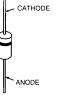
DA204K DA204K-T-146



D1NL20 D1NL20-TA D1NL20-TR EGP20G EL1Z GP08D GP08DPKG23 MTZJ-T-77-9.1

RGP02-20EG23 RGP02-20EL-6394 RGP10GPKG23 RGP15GPKG23 S2LA20F 1SS133T-77 1SS83 MTZJ-T-77-9.1A 1SS83TD

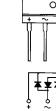
R2K-V1







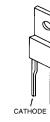




ERC38-06



ERD08M-1



ESAD39M-ESAD39M-

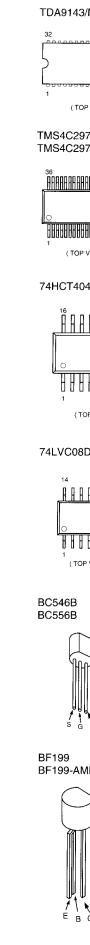


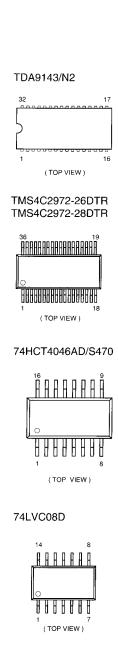


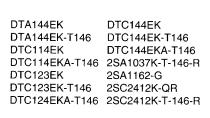












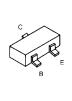
BF421L-AMMO

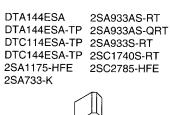
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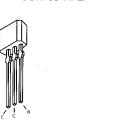
2SC2500-B

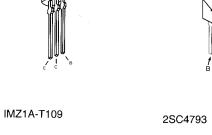
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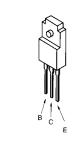
BF871-127

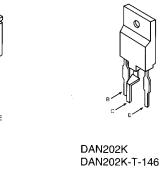












IRF620

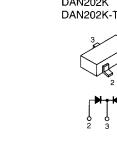
2SA1837

2SC2688-LK

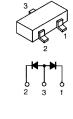
2SC3271-N

2SC3997CA

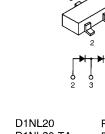
2SC4834NP-F09

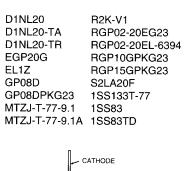


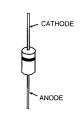


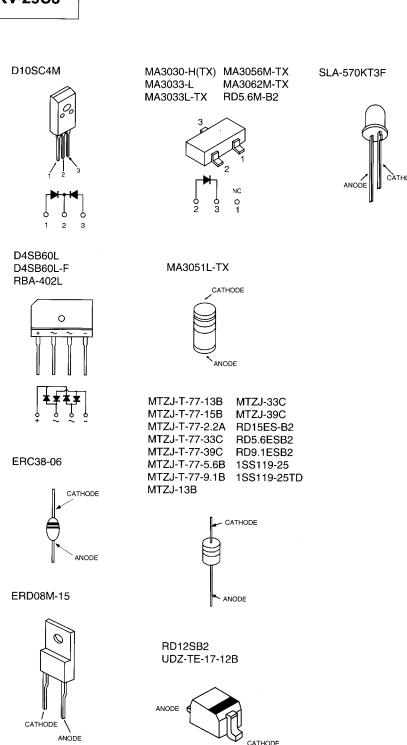




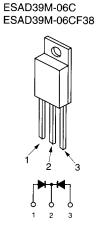


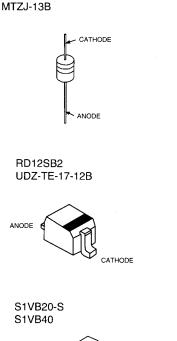


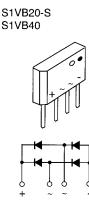






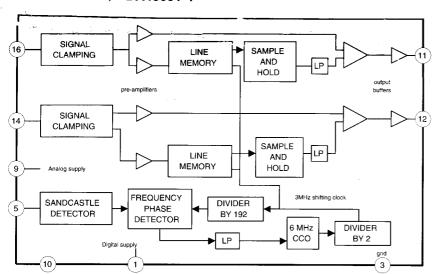




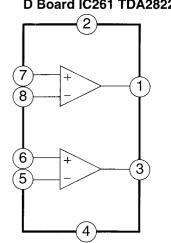


### 5-5. IC BLOCK DIAGRAMS

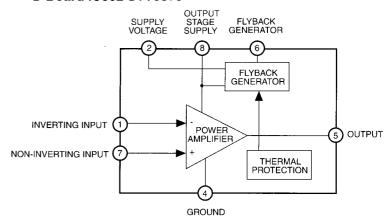
# A Board IC303, TDA4665T-T



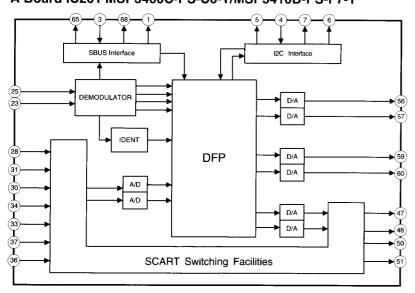
#### D Board IC261 TDA2822M



#### D Board IC802 STV9379



#### A Board IC201 MSP3400C-PS-C6-T/MSP3410B-PS-F7-T



# SECTION 6 EXPLODED VIEWS

#### NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

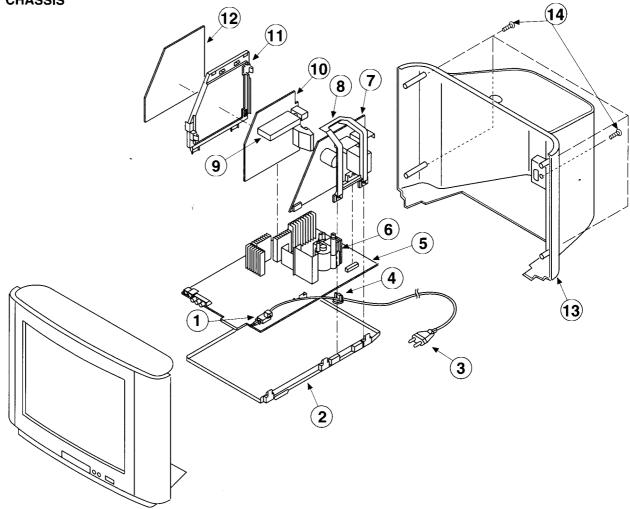
The components identified by shading and marked  $\Delta$  are critical for safety.

Replace only with the part number specified.

Les composants identifies par une trame et une marque A sont critiques pour la securite.

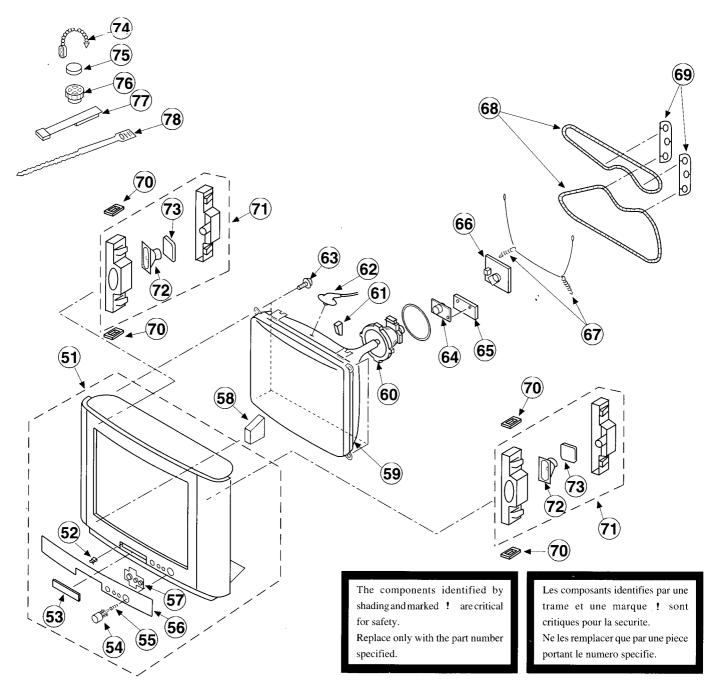
Ne les remplacer que par une piece portant le numero specifie.

# 6-1. CHASSIS



REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
<b>1</b> 00 (100 (100 )	1-571-433-21	SWITCH, PUSH (AC PO	WER)	11	*4-203-612-01	BRACKET, A-B	
2	*4-203-415-01	BRACKET, MAIN		12	*A-1620-080-A	B BOARD, COMPLETE	
3	1-751-680-11	CORD, BOWER WITH I	oise filter)	13	4-202-993-11	COVER, REAR	
	<b>7</b>			14	4-039-358-01	SCREW (4X16), (+)	BV TAPPING
4	*4-202-531-01	AC CORD LOCK (SC)					
5	*A-1640-246-A	D BOARD, COMPLETE					
<b>6</b>	1-453-222-11	TRANSPÓRMER ASSY, I	PLYBACK				
7	*A-1636-021-A						
8	*4-203-613-01	SUPPORTER, G					
9	1-693-338-11	TUNER (TUVIF) (AEP)	•				
		(KV-29C3A/29C3D/	29C3E/29C3K/29C3R)				
	1-693-340-11	TUNER (TUVIF) (FR)	(KV-29C3B)				
10	*A-1632-572-A	A BOARD, COMPLETE	(KV-29C3A)				
	*A-1632-570-A	A BOARD, COMPLETE					
	*A-1632-498-A	A BOARD, COMPLETE	(KV-29C3D)				
	*A-1632-571-A		•				
	*A-1632-574-A	A BOARD, COMPLETE					
	*A-1632-573-A	A BOARD, COMPLETE	(KV-29C3R)				

### 6-2. PICTURE TUBE



REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
51	X-4200-293-1	BEZNET ASSY (M)	52-57	63	4-203-043-01	SCREW (M), PT	
		(KV-29C3A	/29C3D/29C3K/29C3R)	64	8-453-005-21:	NECK ASSY PICTURE	TUBE (NA297-M2)
	X-4200-295-1	BEZNET ASSY (M-N)	52-57	65	*A-1644-077-A	VM BOARD, COMPLETE	
			(KV-29C3B/29C3E)	66	*A-1638-097-A	C BOARD, COMPLETE	
52	4-392-036-01	CATCHER PUSH		67	4-369-318-51	SPRING, TENSION	
53	4-203-013-31	DOOR (PAINTED)		68	1-406-807-11	COIL DEGAUSSING	\$. 李. 李. 李. 李. 李. \$. \$. \$. \$. \$. \$. \$. \$. \$. \$. \$. \$. \$.
5 <b>4</b>	4-202-992-01	BUTTON, POWER		69	4-202-749-01	HOLDER, D.G.C. (29	
55	4-202-964-01	SPRING		70	*4-202-988-01	CUSHION, BOX	• ,
56	X-4200-294-1	PANEL ASSY (M)		71	*A-1678-087-A	BOX ASSY	72-73
		(KV-29C3A	/29C3D/29C3K/29C3R)	72	1-504-146-11	SPEAKER (5X11CM)	
	X-4200-296-1	PANEL ASSY (M-N)	(KV-29C3B/29C3E)	73	4-200-999-01	STOPPER	
57	4-203-524-01	WINDOW ORNAMENTAL		74	4-308-870-00	CLIP, LEAD WIRE	
58	4-203-098-01	SUPPORTER, CRT		75	1-452-032-00	MAGNET, DISK; 10MM	Ø
59	8-733-856-05	PICTURE TUBE (SD-	(69): (M68LCT60X)	76	1-452-094-00	MAGNET, ROTATABLE	
59 60	8-451-466-11	DEFLECTION YOKE	(29GXC2B)	77	X-4387-214-1	PERMALLOY ASSY, CO	
61	3-704-495-01	SPACER, DY		78	3-701-007-00	BAND, BINDING	
62 1111	11125113171911	CAP ASSY, HIGH VOI	MAGE				

# **SECTION 7**

### **ELECTRICAL PARTS LIST**

When indicating parts by reference number, please include the board name.

**CAPACITORS** 

**COILS** 

MF: mF, PF: mmF

 $MMH:mH,\mu H:mH$ 

• Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

#### **RESISTORS**

- All resistors are in ohms
- F: nonflammable

The components identified by shading and marked 🐮 are critical for safety.

Replace only with the part number specified.

Les composants identifies par une trame et une marque 🥠 sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

	E	3
RE	F.N	0.

REF.NO.	PART NO.	DESCRIPTION	REMARI	REF.NO.	PART NO.	DESCRIPTION		REMARK
		B BOARD, COMPLETE		C1806 C1807 C1808	1-110-501-11 1-126-963-11 1-163-125-00	CERAMIC CHIP 0.33MF ELECT 4.7MF CERAMIC CHIP 220PF	10% 20% 5%	16V 50V 50V
	< CAP	ACITOR >		C1809	1-163-125-00	CERAMIC CHIP 220PF	5%	50V
C407 C408 C409 C410 C411	1-126-969-11 1-164-004-11 1-162-638-11 1-162-638-11 1-162-638-11	CERAMIC CHIP 0.1MF CERAMIC CHIP 1MF CERAMIC CHIP 1MF CERAMIC CHIP 1MF	20% 50V 10% 25V 16V 16V 16V	C1810 C1811 C1812 C1813 C1814	1-162-638-11 1-163-989-11 1-163-989-11 1-164-489-11 1-163-125-00	CERAMIC CHIP 0.033MF	10% 10% 10% 5%	16V 25V 25V 16V 50V
C412 C413 C414 C415 C416	1-163-037-11 1-163-037-11 1-164-005-11 1-162-638-11 1-162-638-11	CERAMIC CHIP 0.022MF CERAMIC CHIP 0.022MF CERAMIC CHIP 0.47MF CERAMIC CHIP 1MF CERAMIC CHIP 1MF	10% 50V 10% 50V 25V 16V 16V	C1815 C1816 C1817 C1818 C1819	1-163-125-00 1-126-963-11 1-164-004-11 1-164-004-11 1-163-097-00		5% 20% 10% 10% 5%	50V 50V 25V 25V 50V
C417 C418 C419 C420 C421	1-162-638-11 1-164-004-11 1-164-004-11 1-164-004-11 1-162-568-11	CERAMIC CHIP 1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.33MF	16V 10% 25V 10% 25V 10% 25V 10% 16V	C1820 C1821 C1822 C1823 C1824	1-163-097-00 1-164-004-11 1-164-004-11 1-164-004-11 1-164-004-11		5% 10% 10% 10% 10%	50V 25V 25V 25V 25V
C422 C427 C428 C429 C430	1-162-638-11 1-126-963-11 1-164-004-11 1-163-103-00 1-163-103-00	CERAMIC CHIP 1MF ELECT 4.7MF CERAMIC CHIP 0.1MF CERAMIC CHIP 27PF CERAMIC CHIP 27PF	16V 20% 50V 10% 25V 5% 50V 5% 50V	C1825 C1826 C1827 C1828 C1829	1-126-964-11 1-164-004-11 1-164-004-11 1-163-117-00 1-163-097-00	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 100PF CERAMIC CHIP 15PF	20% 10% 10% 5% 5%	50V 25V 25V 50V 50V
C431 C432 C433 C434 C435	1-164-004-11 1-164-004-11 1-164-004-11 1-163-117-00 1-163-145-00	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 100PF CERAMIC CHIP 0.0015MF	10% 25V 10% 25V 10% 25V 5% 50V 5% 50V	C1830 C1831 C1850 C1851 C1852	1-164-004-11 1-163-125-00 1-163-111-00 1-163-989-11 1-164-005-11	CERAMIC CHIP 56PF CERAMIC CHIP 0.033MF	10% 5% 5% 10%	25V 50V 50V 25V 16V
C438 C439 C440 C441 C446	1-164-004-11 1-126-964-11 1-126-964-11 1-163-037-11 1-163-125-00		10% 25V 20% 50V 20% 50V 10% 50V 5% 50V	C1856 C1857 C1858 C1859 C1860	1-163-105-00 1-163-101-00 1-163-989-11 1-164-005-11 1-126-961-11	CERAMIC CHIP 0.033MF CERAMIC CHIP 0.47MF	5% 5% 10% 20%	50V 50V 25V 16V 50V
C450 C451 C452 C453 C454	1-164-004-11 1-164-004-11 1-163-103-00 1-164-004-11 1-162-568-11	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 27PF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.33MF	10% 25V 10% 25V 5% 50V 10% 25V 10% 16V	C1861 C1862 C1864 C1866 C1867	1-163-097-00 1-163-097-00 1-163-002-11 1-126-964-11 1-164-004-11	CERAMIC CHIP 15PF CERAMIC CHIP 15PF CERAMIC CHIP 270PF ELECT 10MF CERAMIC CHIP 0.1MF	5% 5% 10% 20% 10%	50V 50V 50V 50V 25V
C455 C1801 C1802 C1803 C1804	1-126-964-11 1-126-963-11 1-163-141-00 1-126-964-11 1-164-004-11	ELECT 4.7MF CERAMIC CHIP 0.001MF ELECT 10MF	20% 50V 20% 50V 5% 50V 20% 50V 10% 25V	C1868 C1869 C1870 C1871 C1872	1-164-004-11 1-164-004-11 1-164-004-11 1-164-004-11 1-164-004-11	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF	10% 10% 10% 10% 10%	25V 25V 25V 25V 25V
C1805	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V	C1873	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V



REF.NO.	PART NO.	DESCRIPTION		REMARK	REF.NO.	PART NO.	DESCRIPTION	REMAI
C1874	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V		< ENC	CAPSULATED FILTER >	
C1875		CERAMIC CHIP 0.1MF	10%	25V				
C1879		CERAMIC CHIP 0.1MF	10%	25V	FL1801		FILTER, LOW PASS	
C1880	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	FL1803	1-415-940-11		_
					FL1807		ENCAPSULATED COMPONENT	
C1881	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	FL1808		ENCAPSULATED COMPONENT	
C1882	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	FL1809	1-236-071-11	ENCAPSULATED COMPONENT	ľ
C1883	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V				
C1886	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V		< IC	>	
C1887	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	IC402	0_750_275_26	IC TDA4780/V3	
<b>01000</b>	1 164 004 11	CERAMIC CHIP 0.1MF	10%	25V	IC402	8-759-421-42		
C1889 C1890	1-126-964-11	ELECT 10MF	20%	50V	IC1801		IC TDA8755T-T	
C1891	1-120-904-11	CERAMIC CHIP 0.1MF	10%	25V	IC1802		IC SAA4945H/V1	•
C1892		CERAMIC CHIP 0.1MF	10%	25V	IC1803		IC TMS4C2972-28DTR	
C1893		CERAMIC CHIP 0.1MF	10%	25V				
01070	2 101 001 11	<b>52.1</b>			IC1809	8-759-438-63	IC SDA9280A41	
C1894	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	IC1812		IC 74HCT4046AD/S470	
C1897	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	IC1814	8-759-438-64	IC SAA4952WP/V1	
C1898		CERAMIC CHIP 0.1MF	10%	25V	IC1815	8-759-444-24	IC 74HCT4046AD/S470	
C1899		CERAMIC CHIP 15PF	5%	50V				
C1903	1-163-251-11	CERAMIC CHIP 100PF	5%	50V	IC1816		IC P83C654EBA/560	
					IC1823		IC LM78L05ACZ	
C1904		CERAMIC CHIP 0.0015MF	5%	50V	IC1824		IC LM78L05ACZ	
C1910	1-126-964-11	ELECT 10MF	20%	50V	IC1825	8-759-234-77	IC TC4Soor	
C1912	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V		< CO	T .	
C1947		CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF	10% 10%	25V 25V		< 00.	.ш >	
C1948	1-164-004-11	CERAMIC CHIP U.IMF	10%	23V	L401	1-408-429-00	INDUCTOR 470UH	
JR426	1_163_117_00	CERAMIC CHIP 100PF	5%	50V	L402	1-408-429-00		
01420	1-105-117-00	CERCENTE CHII IOUII	30	501	L407		INDUCTOR CHIP 3.3UH	
	< 000	NNECTOR >			L1801	1-410-435-21		
					L1802	1-410-435-21		
CN412	*1-564-513-11	PLUG, CONNECTOR 10P						
CN413		PLUG, CONNECTOR 8P			L1803	1-408-403-00		
CN417		PLUG, CONNECTOR 15P			L1804	1-408-409-00		
CN419		PLUG, CONNECTOR 9P			L1805		INDUCTOR CHIP 3.3UH	
CN1810	*1-564-512-11	PLUG, CONNECTOR 9P			L1808	1-408-403-00		
					L1811	1-408-403-00	INDUCTOR 3.3UH	
CN1815	*1-564-512-11	PLUG, CONNECTOR 9P			71012	1-408-403-00	INDUCTOR 3.3UH	
	< DIC	ODE >			L1813	1-400-403-00	INDUCTOR 3.30h	
7401	0 540 044 40	DECDE DIVIDAGE # 146				< TRA	ANSISTOR >	
D401 D402		DIODE DAN202K-T-146 DIODE DAN202K-T-146			0415	9_729_900_53	TRANSISTOR DTC114EKA	
D402 D403		DIODE MA3033L-TX			Q415 Q416		TRANSISTOR 2SC2412K-OF	}
D410		DIODE MA3062M-TX			01801		TRANSISTOR 2SA1162-G	•
D411		DIODE DAN202K-T-146			Q1802		TRANSISTOR DTC144EK	
<b></b>	0 /13 /11 13	21022 212020			01804	8-729-901-01	TRANSISTOR DTC144EK	
D412	8-719-914-43	DIODE DAN202K-T-146			_			
D415	8-719-914-43	DIODE DAN202K-T-146			Q1805		TRANSISTOR 2SA1162-G	
					Q1808		TRANSISTOR DTC144EK	
	< FEI	RRITE BEAD >			Q1809		TRANSISTOR DTC144EK	
					Q1810		TRANSISTOR DTC144EK	
FB401	1-414-234-11	INDUCTOR, FERRITE BEAD			Q1812	8-729-920-74	TRANSISTOR 2SC2412K-QF	<b>L</b>
FB402		INDUCTOR, FERRITE BEAD				ם ס	SISTOR >	
FB403 FB404	1-414-234-11	INDUCTOR, FERRITE BEAD INDUCTOR, FERRITE BEAD				< KE	213104 >	
FB405		INDUCTOR, FERRITE BEAD			C1916	1-216-043-91	METAL GLAZE 560 5%	1/10W
IDEOS	1-414-234-11	INDUCTOR, PERRITE DEAD			01710	1 210 013 31		, 2, 2011
FB406	1-414-234-11	INDUCTOR, FERRITE BEAD			JR401	1-216-295-91	METAL GLAZE 0 5%	1/10W
FB407		INDUCTOR, FERRITE BEAD			JR402	1-216-295-91	METAL GLAZE 0 5%	
FB1801	1-414-234-11	INDUCTOR, FERRITE BEAD			JR403	1-216-295-91		
FB1802	1-414-234-11	INDUCTOR, FERRITE BEAD			JR404	1-216-295-91		
FB1803	1-414-234-11	INDUCTOR, FERRITE BEAD			JR405	1-216-295-91	METAL GLAZE 0 5%	1/10W
						1 016 007 01		1 /1014
FB1804		INDUCTOR, FERRITE BEAD			JR406	1-216-295-91		
FB1805		INDUCTOR, FERRITE BEAD			JR407	1-216-295-91		
FB1806	1-414-234-11	INDUCTOR, FERRITE BEAD			JR408 JR409	1-216-295-91	METAL GLAZE 0 5%	
					JR414	1-216-295-91		
					01414	1 210-233-31	ILINE CEREB V J	, _,,



REF.NO.	PART NO.	DESCRIPTIO	N		REMARK	REF.NO.	PART NO.	DESCRIPTION	N		REMARK	
			<u> </u>									
JR415	1-216-295-91	METAL GLAZE	0	5%	1/10W	JR1897	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR417	1-216-295-91	METAL GLAZE	0	5%	1/10W	JR1898	1-216-295-91		0	5%	1/10W	
JR418	1-216-295-91	METAL GLAZE	0	5%	1/10W	JR1899	1-216-295-91		0	5%	1/10W	
JR420	1-216-295-91		0	5%	1/10W	JR1901	1-216-295-91		0	5%	1/10W	
JR421	1-216-295-91	METAL GLAZE	0	5%	1/10W	JR1904	1-216-295-91	METAL GLAZE	0	5%	1/10W	
			_		4 /4 0		4 044 005 04		•		4 /4 0	
JR422	1-216-295-91		0	5%	1/10W	JR1905	1-216-295-91		0	5%	1/10W	
JR423	1-216-295-91		0	5%	1/10W	JR1910	1-216-295-91		0	5%	1/10W	
JR424	1-216-295-91 1-216-295-91		0	5% 5%	1/10W 1/10W	JR1911	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR1814 JR1815	1-216-295-91	METAL GLAZE	0	5%	1/10W 1/10W	R408	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
ÛKIOIS	1-210-233-31	METAL GLAZE	U	20	1/104	R409	1-216-057-00		2.2K	5%	1/10W 1/10W	
JR1816	1-216-295-91	METAL GLAZE	0	5%	1/10W	R439	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
JR1817	1-216-295-91		Ö	5%	1/10W	R443	1-216-025-91		100	5%	1/10W	
JR1818	1-216-295-91	METAL GLAZE	Ö	5%	1/10W	R444	1-216-025-91		100	5%	1/10W	
JR1819	1-216-295-91		0	5%	1/10W							
JR1820	1-216-295-91	METAL GLAZE	0	5%	1/10W	R445	1-216-025-91		100	5%	1/10W	
						R446	1-216-025-91		100	5%	1/10W	
JR1821	1-216-295-91		0	5%	1/10W	R447	1-216-025-91		100	5%	1/10W	
JR1822	1-216-295-91		0	5%	1/10W	R448	1-216-043-91		560	5%	1/10W	
JR1823	1-216-295-91	METAL GLAZE	0	5%	1/10W	R449	1-216-049-91	METAL GLAZE	1K	5%	1/10W	
JR1824	1-216-295-91		0	5%	1/10W	-450	4 045 000 00		400=		4 /4 0**	
JR1825	1-216-295-91	METAL GLAZE	0	5%	1/10W	R450	1-216-099-00		120K	5%	1/10W	
TD1006	1 016 005 01		^	FO.	1 /1 057	R451	1-216-101-00		150K	5%	1/10W	
JR1826	1-216-295-91		0	5%	1/10W	R452 R453	1-216-073-00 1-216-017-91		10K 47	5% 5%	1/10W 1/10W	
JR1827 JR1828	1-216-295-91 1-216-295-91	METAL GLAZE METAL GLAZE	0 0	5% 5%	1/10W 1/10W	R453	1-216-017-91		47	5% 5%	1/10W 1/10W	
JR1829	1-216-295-91		0	5%	1/10W	V424	1-210-017-91	MEIAL GUAZE	# /	J%	1/1011	
JR1830	1-216-295-91	METAL GLAZE	0	5%	1/10W	R455	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W	
0111030	1 210 255 51	MDIND CHILD	v	3.0	1/1011	R456	1-216-097-91		100K	5%	1/10W	
JR1831	1-216-295-91	METAL GLAZE	0	5%	1/10W	R457	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
JR1832	1-216-295-91	METAL GLAZE	Ö	5%	1/10W	R458	1-216-049-91		1K	5%	1/10W	
JR1833	1-216-295-91	METAL GLAZE	0	5%	1/10W	R459	1-216-049-91	METAL GLAZE	1K	5%	1/10W	
JR1834	1-216-295-91	METAL GLAZE	0	5%	1/10W							
JR1835	1-216-295-91	METAL GLAZE	0	5%	1/10W	R463	1-216-049-91		1K	5%	1/10W	
						R465	1-216-073-00		10K	5%	1/10W	
JR1836	1-216-295-91			5%	1/10W	R466	1-216-049-91		1K	5%	1/10W	
JR1837	1-216-295-91			5%	1/10W	R467	1-216-041-00	METAL GLAZE	470	5%	1/10W	
JR1838	1-216-295-91	METAL GLAZE	0	5%	1/10W	R468	1-216-025-91	METAL GLAZE	100	5%	1/10W	
JR1839	1-216-295-91	METAL GLAZE		5%	1/10W	D460	1 016 005 01	MEMBER OF SEE	100	F0.	1 /1 014	
JR1840	1-216-295-91	METAL GLAZE	0	5%	1/10W	R469 R470	1-216-025-91 1-216-055-00	METAL GLAZE	100 1.8K	5% 5%	1/10W 1/10W	
JR1843	1-216-295-91	אסתאו מואס	0	5%	1/10W	R483	1-216-063-91		3.9K		1/10W	
JR1845	1-216-295-91			5%	1/10W	R484	1-216-049-91		1K	5%	1/10W	
JR1846	1-216-295-91			5%	1/10W	R490	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR1865	1-216-295-91	METAL GLAZE		5%	1/10W	11250	1 110 133 71		•	50	-,	
JR1866	1-216-295-91				1/10W	R1801	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
					-,	R1802	1-216-049-91		1K	5%	1/10W	
JR1868	1-216-295-91	METAL GLAZE	0	5%	1/10W	R1803	1-216-296-91	METAL GLAZE	0	5%	1/8W	
JR1869	1-216-295-91			5%	1/10W	R1804	1-216-053-00		1.5K		1/10W	
JR1870	1-216-295-91		0	5%	1/10W	R1805	1-216-049-91	METAL GLAZE	1K	5%	1/10W	
JR1871	1-216-295-91			5%	1/10W						4.44.4	
JR1872	1-216-295-91	METAL GLAZE	0	5%	1/10W	R1806	1-216-051-00		1.2K		1/10W	
TD1000	4 046 00= 61		^	F0.	1 /1 0**	R1807	1-216-049-91		1K	5%	1/10W	
JR1873	1-216-295-91	METAL GLAZE		5%	1/10W	R1808	1-216-025-91		100	5% 5%	1/10W	
JR1874 JR1875	1-216-295-91			5%	1/10W 1/10W	R1810 R1811	1-216-076-00 1-216-025-91		13K 100	5% 5%	1/10W 1/10W	
JR1876	1-216-295-91			5% 5%	1/10W 1/10W	KTOTT	1-210-025-91	METAL GLAZE	100	3%	1/10W	
JR1877	1-216-295-91 1-216-295-91			5%	1/10W	R1812	1-216-033-00	METAL CLATE	220	5%	1/10W	
OMIOII	T-710-733-31	MEIAU GUAGE	v	J10	T/ TON	R1813	1-216-033-00		680	5%	1/10W	
JR1885	1-216-295-91	METAL GLAZE	0	5%	1/10W	R1814	1-216-031-00		180	5%	1/10W	
JR1886	1-216-295-91			5%	1/10W	R1815	1-216-037-00		330	5%	1/10W	
JR1887	1-216-295-91			5%	1/10W	R1816	1-216-295-91		0	5%	1/10W	
JR1888	1-216-295-91	METAL GLAZE	-	5%	1/10W							
JR1890	1-216-295-91			5%	1/10W	R1817	1-216-037-00	METAL GLAZE	330	5%	1/10W	
						R1818	1-216-037-00		330	5%	1/10W	
JR1891	1-216-295-91			5%	1/10W	R1819	1-216-073-00		10K	5%	1/10W	
JR1892	1-216-295-91		-	5%	1/10W	R1820	1-216-029-00		150	5%	1/10W	
JR1893	1-216-295-91			5%	1/10W	R1821	1-216-023-00	METAL GLAZE	82	5%	1/10W	
JR1894	1-216-295-91	METAL GLAZE		5%	1/10W	<b>D1000</b>	1 016 006 01		•	F0.	1 / 01/1	
JR1896	1-216-295-91	METAL GLAZE	0	5%	1/10W	R1822	1-216-296-91		0	5% 5%	1/8W	
						R1831	1-216-081-00	METAL GLAZE	22K	5%	1/10W	





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REF.NO	PART NO.	DESCRIPTIO	<u>N</u>		REMARK	REF.NO.	PART NO.	DESCRIPTION	N		REMARK
R1832 R1833 R1834	1-216-065-00 1-216-041-00 1-216-115-00	METAL GLAZE METAL GLAZE METAL GLAZE	4.7K 470 560K	5% 5% 5%	1/10W 1/10W 1/10W	X401	1-767-343-21	STAL > VIBRATOR, CRY VIBRATOR, CER			
R1835 R1844 R1845	1-216-037-00 1-216-081-00 1-216-065-00		330 22K 4.7K	5% 5% 5%	1/10W 1/10W 1/10W	X1801 *****	1-3/9-1/3-11		. ,	,	*****
R1846 R1847	1-216-055-00 1-216-115-00	-	2K 560K	5% 5%	1/10W 1/10W 1/10W			A BOARD, COMP	****		
R1848 R1849	1-216-025-91 1-216-001-00	METAL GLAZE METAL GLAZE	100 10	5% 5%	1/10W 1/10W			A BOARD, COMP	**** LETE (KV-2)		
R1850 R1851 R1852	1-216-057-00 1-216-057-00 1-216-057-00	METAL GLAZE METAL GLAZE METAL GLAZE	2.2K 2.2K 2.2K	5% 5% 5%	1/10W 1/10W 1/10W		*A-1632-571-A	**************************************	LETE (KV-2	9C3E)	
R1853 R1854	1-216-057-00 1-216-057-00	METAL GLAZE METAL GLAZE	2.2K 2.2K	5% 5%	1/10W 1/10W			A BOARD, COMP.  ************  A BOARD, COMP.	****		
R1855 R1856 R1857	1-216-057-00 1-216-057-00 1-216-057-00	METAL GLAZE METAL GLAZE METAL GLAZE	2.2K 2.2K 2.2K	5% 5%	1/10W 1/10W 1/10W			**************************************		,	
KT02/	1-210-05/-00	METAL GLAZE	2.2R	J′0	1/10#		Chi	ACTION >			
R1858 R1859 R1861 R1864	1-216-057-00 1-216-017-91 1-216-295-91 1-216-071-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	2.2K 47 0 8.2K	5% 5%	1/10W 1/10W 1/10W 1/10W	C101 C102 C103	1-164-004-11	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.1MF	10% 10% 5%	25V 25V 50V (KV-29C3B)
R1865	1-216-295-91	METAL GLAZE	0	5%	1/10W	C105 C111	1-126-965-11 1-124-907-11		22MF 10MF	20% 20%	50V 50V
R1866 R1867 R1868 R1869 R1871	1-216-089-91 1-216-075-00 1-216-089-91 1-216-049-91 1-216-055-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	47K 12K 47K 1K 1.8K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	C112 C114 C116 C117	1-164-346-11 1-164-346-11 1-104-664-11 1-163-017-00	CERAMIC CHIP : ELECT CERAMIC CHIP (	1MF 47MF 0.0047MF	20% 10%	16V 16V 16V 50V 16V
R1879 R1880 R1881 R1882	1-216-049-91 1-216-085-00 1-216-065-00 1-216-085-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	1K 33K 4.7K 33K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W	C118 C119 C120 C121	1-104-664-11 1-163-017-00 1-124-907-11 1-164-299-11	CERAMIC CHIP ( ELECT : CERAMIC CHIP (	10MF 0.22MF	20% 10% 20% 10%	50V 50V 25V
R1885 R1886	1-216-049-91 1-216-295-91	METAL GLAZE METAL GLAZE	1K 0	5% 5%	1/10W 1/10W	C122 C126	1-164-346-11 1-104-664-11	CERAMIC CHIP	1MF 47MF	20%	16V 16V
R1888 R1890 R1891 R1894	1-216-021-00 1-216-295-91 1-216-295-91 1-216-047-91	METAL GLAZE METAL GLAZE METAL GLAZE	68 0 0 820	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W	C127 C128 C129 C130 C131	1-163-017-00 1-104-664-11 1-163-017-00 1-163-133-00 1-164-346-11	CERAMIC CHIP (	47MF 0.0047MF 470PF	10% 20% 10% 5%	50V 16V 50V 50V 16V
R1895 R1896 R1897 R1901 R1902	1-216-065-00 1-216-059-00 1-216-065-00 1-216-059-00 1-216-059-00	METAL GLAZE METAL GLAZE METAL GLAZE	4.7K 2.7K 4.7K 2.7K 2.7K	5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	C132 C133 C134 C135	1-163-133-00 1-164-346-11 1-124-907-11 1-164-299-11	CERAMIC CHIP CERAM	470PF 1MF 10MF 0.22MF	5% 20% 10%	50V 16V 50V 25V
R1903 R1904 R1905 R1906 R1907	1-216-059-00 1-216-059-00 1-216-059-00 1-216-059-00 1-216-059-00	METAL GLAZE METAL GLAZE METAL GLAZE	2.7K 2.7K 2.7K 2.7K 2.7K	5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	C136 C137 C138 C139 C140		CERAMIC CHIP 4 ELECT 1 CERAMIC CHIP 4 CERAMIC CHIP 4	10MF 1MF 4.7MF	20%	50V 16V 50V 16V 16V
R1908 R1909 R1910 R1911 R1912	1-216-059-00 1-216-059-00 1-216-059-00 1-216-059-00 1-216-059-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	2.7K 2.7K 2.7K 2.7K 2.7K	5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	C141 C143 C144 C145	1-163-113-00 1-163-237-11 1-163-113-00	CERAMIC CHIP 2 CERAMIC CHIP 6	68PF 27PF 68PF	5% 5% 5%	16V 50V 50V 50V (KV-29C3B)
R1920 R1921	1-216-295-91 1-216-295-91	METAL GLAZE	0	5% 5%	1/10W 1/10W	C146 C150	1-164-346-11 1-164-004-11	CERAMIC CHIP 1		10%	16V 25V
R1922 R1923 R1924	1-216-025-91 1-216-083-00 1-216-083-00	METAL GLAZE METAL GLAZE	100 27K 27K	5% 5% 5%	1/10W 1/10W 1/10W	C151 C152 C153 C154 C155		ELECT 1	10MF 0.33MF 0.33MF	10% 20% 10% 10% 10%	25V 50V 16V 16V 25V



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION		REMARK
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C156 C157 C159 C160 C162	1-164-506-11 1-164-506-11 1-164-505-11 1-163-251-11 1-164-346-11	CERAMIC CHIP 4.7MF CERAMIC CHIP 2.2MF CERAMIC CHIP 100PF	16V 16V 16V 5% 50V 16V	C320 C321 C322 C323 C324	1-164-506-11 1-164-506-11	CERAMIC CHIP 4.7MF CERAMIC CHIP 4.7MF	10% 10%	16V 16V 16V 16V 25V
C163 C164 C165 C166 C167	1-163-009-11 1-164-232-11 1-164-346-11 1-163-251-11 1-164-222-11	CERAMIC CHIP 0.01MF CERAMIC CHIP 1MF	10% 50V 10% 50V 16V 5% 50V 25V	C325 C350 C351 C355 C356	1-164-506-11 1-164-506-11 1-163-231-11	CERAMIC CHIP 0.1MF CERAMIC CHIP 4.7MF CERAMIC CHIP 4.7MF CERAMIC CHIP 15PF CERAMIC CHIP 15PF	10% 5% 5%	25V 16V 16V 50V 50V
C200 C201 C202 C203 C204	1-163-251-11 1-163-243-11 1-164-506-11 1-164-004-11 1-162-568-11	CERAMIC CHIP 47PF CERAMIC CHIP 4.7MF	5% 50V 5% 50V 16V 10% 25V 10% 16V	C357 C1001 C1002 C1003 C1004	1-164-506-11 1-164-506-11	CERAMIC CHIP 4.7MF CERAMIC CHIP 4.7MF	5%	50V 16V 16V 16V 16V
C205 C206 C207 C208 C209	1-164-506-11 1-164-004-11 1-110-501-11 1-110-501-11 1-110-501-11	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.33MF CERAMIC CHIP 0.33MF	16V 10% 25V 10% 16V 10% 16V 10% 16V	C1005 C1006 C1007 C1020 C1021		CERAMIC CHIP 100PF	10% 10% 5% 5%	16V 16V 25V 50V
C210 C211 C212 C213 C214	1-110-501-11 1-163-133-00 1-163-133-00 1-164-004-11 1-164-506-11	CERAMIC CHIP 470PF CERAMIC CHIP 470PF	10% 16V 5% 50V 5% 50V 10% 25V 16V	C1022 C1035 C1036 C1039 C1040	1-164-004-11	CERAMIC CHIP 100PF CERAMIC CHIP 100PF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.22MF	5% 5% 10% 10%	50V 50V 25V 25V 25V
C215 C216 C217 C218 C219	1-164-506-11 1-164-004-11 1-124-907-11 1-124-907-11 1-163-131-00	CERAMIC CHIP 0.1MF ELECT 10MF	16V 10% 25V 20% 50V 20% 50V 5% 50V	C1041 C1042 C1043 C1060 C1301	1-164-222-11 1-164-222-11 1-163-251-11 1-163-001-11 1-164-004-11	CERAMIC CHIP 0.22MF CERAMIC CHIP 100PF	5% 10% 10%	25V 25V 50V 50V 25V
C220 C221 C222 C223 C224	1-163-131-00 1-163-275-11 1-163-275-11 1-163-275-11 1-163-275-11	CERAMIC CHIP 390PF CERAMIC CHIP 0.001MF CERAMIC CHIP 0.001MF CERAMIC CHIP 0.001MF CERAMIC CHIP 0.001MF	5% 50V 5% 50V 5% 50V 5% 50V 5% 50V	C1401 C1402 C1403 C1404 C1405	1-164-004-11 1-163-231-11 1-163-231-11 1-164-182-11 1-164-004-11	CERAMIC CHIP 15PF	10% 5% 5% 10% 10%	25V 50V 50V 50V 25V
C227 C228 C229 C230 C231	1-164-337-11 1-164-004-11 1-164-506-11	CERAMIC CHIP 0.1MF	16V 16V 10% 25V 16V 0.25PF 50V	C1406 C1407 C1408 C1409 C1413	1-164-004-11 1-164-004-11 1-164-182-11 1-165-320-11 1-164-004-11	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.0033MF CERAMIC CHIP 0.47MF CERAMIC CHIP 0.1MF	10% 10% 10% 10% 10%	25V 25V 50V 16V 25V
C232 C233 C234 C303 C304	1-163-243-11 1-163-243-11 1-164-004-11	CERAMIC CHIP 4PF CERAMIC CHIP 47PF CERAMIC CHIP 47PF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF	0.25PF 50V 5% 50V 5% 50V 10% 25V 10% 25V	C1414 C1417 C1418 C1420 C1421	1-164-004-11 1-164-004-11 1-164-506-11	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 4.7MF CERAMIC CHIP 4.7MF	10% 10% 10%	25V 25V 25V 16V 16V
C305 C306 C307 C308 C309	1-164-004-11 1-164-004-11 1-164-004-11	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF	10% 25V 10% 25V 10% 25V 10% 25V 10% 25V	C1430 C1431 C1432 C1433 C1434	1-164-004-11 1-164-004-11 1-164-004-11	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF	10% 10% 10% 10% 10%	25V 25V 25V 25V 25V
C310 C311 C312 C313 C314	1-164-004-11 1-164-004-11 1-164-004-11	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF	10% 25V 10% 25V 10% 25V 10% 25V 10% 25V	C1435 C1437 C1438 C1439 C1441	1-163-235-11 1-163-235-11 1-163-087-00	CERAMIC CHIP 0.1MF CERAMIC CHIP 22PF CERAMIC CHIP 22PF CERAMIC CHIP 4PF CERAMIC CHIP 4.7MF	10% 5% 5% 0.25PF	25V 50V 50V 50V 16V
C315 C316 C317 C318 C319	1-164-004-11 1-164-004-11 1-164-182-11	CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.0033MF CERAMIC CHIP 0.0033MF	10% 25V 10% 25V 10% 25V 10% 50V 10% 50V	C1442 C1443 C1444 C1445 C1446	1-164-506-11 1-164-506-11 1-164-506-11	CERAMIC CHIP 4.7MF CERAMIC CHIP 4.7MF CERAMIC CHIP 4.7MF CERAMIC CHIP 4.7MF CERAMIC CHIP 4.7MF		16V 16V 16V 16V 16V



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REF.NO.	PART NO.	DESCRIPTION		REMARK	REF.NO.	PART NO.	DESCRIPTION REMARK	
C1447 C1448 C1450 C1451 C1452	1-165-320-11 1-163-231-11 1-163-231-11	CERAMIC CHIP 0.47MF CERAMIC CHIP 0.47MF CERAMIC CHIP 15PF CERAMIC CHIP 15PF CERAMIC CHIP 0.01MF	10% 10% 5% 5% 10%	16V 16V 50V 50V 50V	D217 D218 D219 D220	8-719-158-49 8-719-158-49	DIODE RD12SB2 DIODE RD12SB2 DIODE RD12SB2 DIODE RD12SB2	
C1460 C1461 C1462 C2001 C2002	1-164-506-11	CERAMIC CHIP 330PF CERAMIC CHIP 330PF CERAMIC CHIP 150PF CERAMIC CHIP 4.7MF CERAMIC CHIP 4.7MF	5% 5% 5%	50V 50V 50V 16V 16V	D221 D223 D301 D1007 D1008	8-719-158-49 8-719-401-41 8-719-914-44	DIODE RD12SB2 DIODE RD12SB2 DIODE MA3051L-TX DIODE DAP202K DIODE DAN202K	
C2004 C2005 C2007 C2020	1-164-506-11 1-164-506-11 1-163-038-91 1-164-222-11	CERAMIC CHIP 4.7MF CERAMIC CHIP 4.7MF CERAMIC CHIP 0.1MF CERAMIC CHIP 0.22MF		16V 16V 25V 25V 25V	D1009 D1010 D1405 D2001	8-719-105-91 8-719-914-42 8-719-036-58	DIODE RD5.6M-B2 DIODE RD5.6M-B2 DIODE DA204K DIODE MA3030-H(TX)	
C2021		CERAMIC CHIP 0.22MF						
C2023 C2024 C2025 C2026	1-163-038-91 1-163-251-11 1-163-235-11 1-163-235-11	CERAMIC CHIP 0.1MF CERAMIC CHIP 100PF CERAMIC CHIP 22PF CERAMIC CHIP 22PF	5% 5% 5%	25V 50V 50V 50V	FB101 FB102	1-414-235-11	INDUCTOR, FERRITE BEAD INDUCTOR, FERRITE BEAD APPULATED FILTER >	
C2028		CERAMIC CHIP 0.01MF		50V	FL102	1-236-071-11	ENCAPSULATED COMPONENT	
C2029 C2030 C2031 C2033	1-164-222-11 1-163-251-11 1-164-222-11 1-163-251-11	CERAMIC CHIP 0.22MF CERAMIC CHIP 100PF CERAMIC CHIP 0.22MF CERAMIC CHIP 100PF	5% 5%	25V 50V 25V 50V	FL103 FL200 FL201 FL202	1-236-071-11 1-236-071-11 1-233-764-21	ENCAPSULATED COMPONENT ENCAPSULATED COMPONENT	
	< FII	TER >			FL203		ENCAPSULATED COMPONENT	
CD1001	1-527-992-31	TER > OSCILLATOR, CERAMIC TRAP, CERAMIC (6.5MHZ)			FL1001	1-236-071-11	ENCAPSULATED COMPONENT ENCAPSULATED COMPONENT ENCAPSULATED COMPONENT	
CF200	1-409-327-00	TRAP, CERAMIC (6.5MHZ)			FL1002 FL1402	1-236-071-11	ENCAPSULATED COMPONENT	
	< CON	NECTOR >			FL1403	1-236-071-11	ENCAPSULATED COMPONENT	
CN101 CN115 CN117 CN201 CN1413	1-695-301-11 *1-564-524-11 *1-564-520-11 1-766-296-11 1-564-523-11	CONNECTOR, BOARD TO BOAP PLUG, CONNECTOR 9P PLUG, CONNECTOR 5P CONNECTOR, DUAL SCART PLUG, CONNECTOR 8P	ARD 40P		FL1404 FL1405 FL2001 FL2003	1-236-071-11 1-236-071-11	ENCAPSULATED COMPONENT ENCAPSULATED COMPONENT ENCAPSULATED COMPONENT ENCAPSULATED COMPONENT	
CN2012	*1-564-525-11	PLUG, CONNECTOR 10P			. IC101		IC CXA1855Q-T6	
-400	< DIC	DDE >			IC102 IC104 IC201	8-759-514-57	IC LM2940CT-9.0 IC BA7046F IC MSP3400C-PS-C6-T-ND (KY-29C3A/29C3D/29C3K/29C3R)	
D102 D103 D104	8-719-158-49	DIODE RD12SB2 DIODE RD12SB2 DIODE RD12SB2				8-759-437-33	IC MSP3410B-PS-F7-T-ND (KV-29C3B/29C3E)	
D105 D199 D200	8-719-158-49 8-719-914-43 8-719-158-49	DIODE RD12SB2 DIODE DAN202K DIODE RD12SB2			IC302 IC303 IC1001 IC1002	8-759-288-85 8-759-351-92 8-759-439-66	IC TDA9143/N2 IC TDA4665T-T IC SDA30C164-GEG IC M27C4001-15C1 SOCKET, PLCC; IC1002	
D201 D202 D203 D204	8-719-158-49 8-719-158-49	DIODE RD12SB2 DIODE RD12SB2 DIODE RD12SB2 DIODE RD12SB2			IC1003 IC1004 IC1401	8-759-378-21 8-759-259-18	IC ST24C16FB6 IC MB3793-42PNF IC TDA9143/N2	
D205 D206 D207	8-719-158-49 8-719-158-49	DIODE RD12SB2 DIODE RD12SB2 DIODE RD12SB2			IC1403 IC2001	8-759-438-61 8-759-438-65	IC SDA9288X-A141 IC SDA5273-C126-GEG	
D208 D209		DIODE RD12SB2 DIODE RD12SB2				< COI		
D210 D211 D212 D213	8-719-158-49 8-719-158-49 8-719-158-49	DIODE RD12SB2 DIODE RD12SB2 DIODE RD12SB2 DIODE RD12SB2			L101 L321 L1401	1-410-428-11	INDUCTOR CHIP 10UH	
D214 D215		DIODE RD12SB2 DIODE RD12SB2			Q102 Q103		TRANSISTOR 2SC2412K-QR TRANSISTOR BSS83 (KV-29C3B)	



	REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTIO	M		REMAR	W
		TAILI NO.	DECOTOR HOLD	ILMAIN	ner .no.	PART NO.	DESCRIPTIO	<u>//N</u>		NEWIAN	in_
	Q104 Q106 Q107	8-729-920-74 8-729-216-22 8-729-216-22	TRANSISTOR 2SC2412K-C TRANSISTOR 2SA1162-G TRANSISTOR 2SA1162-G	R (KV-29C3B) (KV-29C3B)	R114 R115 R116 R117	1-216-311-00 1-216-311-00 1-216-311-00 1-216-022-00	METAL GLAZE METAL GLAZE	6.8 6.8 6.8	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W	
	Q108 Q109 Q110 Q112 Q120	8-729-920-74 8-729-216-22 8-729-038-96 8-729-216-22 8-729-027-52	TRANSISTOR IMZ1A-T109 TRANSISTOR 2SA1162-G	PR T146	R118 R119 R120 R121 R122	1-216-022-00 1-216-022-00 1-216-022-00 1-216-022-00 1-216-073-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	75 75 75 75 75	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
	Q200 Q205 Q301 Q302 Q315	8-729-920-74 8-729-920-74	TRANSISTOR 2SC2412K-Q TRANSISTOR 2SC2412K-Q TRANSISTOR 2SC2412K-Q	R PR PR PR	R123 R124 R126 R127 R128	1-216-073-00 1-216-113-00 1-216-039-00 1-216-039-00 1-216-113-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	10K 470K 390 390 470K	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
	Q316 Q317 Q318 Q1001 Q1301			PR	R129 R130 R131 R132 R133	1-208-774-11 1-216-039-00 1-216-039-00 1-216-089-91 1-216-065-00	METAL CHIP METAL GLAZE METAL GLAZE METAL GLAZE	470K 470 390 390 47K 4.7K	0.50% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
	Q1305 Q1311 Q1312 Q1401 Q1402	8-729-216-22 8-729-920-74 8-729-920-74 8-729-038-96 8-729-038-96	TRANSISTOR 2SC2412K-Q	P.R.	R134 R135 R136 R137 R138	1-216-089-91 1-216-065-00 1-216-022-00 1-216-033-00 1-216-022-00	METAL GLAZE METAL GLAZE METAL GLAZE	47K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
	Q1403 Q1404 Q1411 Q1412 Q2005	8-729-038-96 8-729-920-74 8-729-920-74 8-729-920-74 8-729-920-74		R R R	R139 R141 R142 R143 R144	1-216-033-00 1-216-033-00 1-216-033-00 1-216-025-91 1-216-025-91	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	220 220 220 100 100	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
	Q2006 Q2007	8-729-027-59 8-729-027-59	TRANSISTOR DTC144EKA- TRANSISTOR DTC144EKA-		R146	1-216-033-00	METAL GLAZE	220	5% 0.50%	1/10W	
		< RES	ISTOR >		R148 R149 R151	1-208-774-11 1-216-073-00 1-208-774-11	METAL CHIP METAL GLAZE METAL CHIP	470 10K 470	0.50% 5% 0.50%	1/10W	
	JR301 JR302 JR303 JR1001 JR1002 JR1003	1-216-295-91 1-216-295-91 1-216-295-91 1-216-295-91 1-216-295-91 1-216-295-91	METAL GLAZE         0         5           METAL GLAZE         0         5           METAL GLAZE         0         5           METAL GLAZE         0         5	% 1/10W % 1/10W % 1/10W % 1/10W % 1/10W	R152 R153 R154 R156 R157 R159	1-216-067-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	5.6K 6.8 5.6K 1.2K 100 3.3		1/10W 1/10W 1/10W 1/10W 1/10W 1/10W 1/10W	
	JR1004 JR1006 JR1008 JR1009	1-216-295-91 1-216-295-91 1-216-295-91 1-216-295-91	METAL GLAZE 0 5 METAL GLAZE 0 5 METAL GLAZE 0 5	% 1/10W % 1/10W % 1/10W % 1/10W % 1/10W	R160 R162 R163 R166	1-216-039-00	METAL GLAZE	390 47K 390 390	5%	1/10W 1/10W 1/10W 1/10W	
	JR1010 JR1011 JR1301 JR1302 JR1402	1-216-295-91 1-216-295-91 1-216-295-91 1-216-295-91 1-216-295-91	METAL GLAZE 0 5 METAL GLAZE 0 5 METAL GLAZE 0 5	% 1/10W % 1/10W % 1/10W	R167 R168 R169 R170 R171	1-216-067-00 1-216-067-00 1-216-021-00	METAL GLAZE METAL GLAZE	390 5.6K 5.6K 68 68	5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
	JR1403	1-216-295-91	METAL GLAZE 0 5	% 1/10W	R172		METAL GLAZE	68	5%	1/10W	
	R101 R102 R103 R104 R106	1-216-210-00 1-216-025-91 1-216-025-91 1-216-073-00 1-216-033-00	METAL GLAZE 100 5 METAL GLAZE 100 5 METAL GLAZE 10K 5	% 1/10W % 1/10W % 1/10W	R173 R174 R175 R176 R177	1-216-021-00 1-216-051-00 1-216-089-91 1-216-049-91 1-216-089-91	METAL GLAZE METAL GLAZE METAL GLAZE	68 1.2K 47K 1K 47K	5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
	R108 R109 R110 R111 R112	1-216-057-00 1-216-085-00 1-216-097-91 1-216-041-00 1-216-041-00	METAL GLAZE 33K 55 METAL GLAZE 100K 55 METAL GLAZE 470 55	% 1/10W % 1/10W % 1/10W	R178 R179 R180 R181 R182	1-216-089-91 1-216-113-00 1-216-113-00 1-216-071-00 1-216-071-00	METAL GLAZE METAL GLAZE	470K 8.2K	5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	
1	R113	1-216-041-00	METAL GLAZE 470 5	% 1/10W	R183	1-216-033-00	METAL GLAZE	220	5%	1/10W	



REF.NO.	PART NO.	DESCRIPTION		REMARK	REF.NO.	PART NO.	DESCRIPTION		REMA
R184 R185 R186 R187	1-216-033-00 1-216-033-00 1-216-057-00 1-216-107-00	METAL GLAZE 220 METAL GLAZE 220 METAL GLAZE 2.21 METAL GLAZE 2701		1/10W 1/10W 1/10W 1/10W	R1038 R1039 R1040 R1041	1-216-049-91 1-216-049-91 1-216-049-91 1-216-049-91	METAL GLAZE 1K METAL GLAZE 1K METAL GLAZE 1K METAL GLAZE 1K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W
R188 R189 R190 R191 R192	1-216-113-00 1-218-755-11 1-216-075-00 1-216-069-00 1-216-041-00	METAL GLAZE 4701 METAL CHIP 1301 METAL GLAZE 12K METAL GLAZE 6.81 METAL GLAZE 470	0.50% 5%	1/10W 6 1/10W 1/10W 1/10W 1/10W	R1042 R1044 R1045 R1046 R1047	1-216-025-91 1-216-025-91 1-216-073-00 1-216-025-91 1-216-009-00	METAL GLAZE 100 METAL GLAZE 100 METAL GLAZE 10K METAL GLAZE 100 METAL GLAZE 22	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W
R193 R194 R195 R196 R197	1-216-041-00 1-216-041-00 1-216-073-00 1-216-113-00 1-216-073-00	METAL GLAZE 470 METAL GLAZE 470 METAL GLAZE 10K METAL GLAZE 4701 METAL GLAZE 10K	5% 5% 5% 5 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R1048 R1050 R1051 R1052 R1053	1-216-083-00 1-216-049-91 1-216-057-00 1-216-037-00 1-216-065-00	METAL GLAZE 27K METAL GLAZE 1K METAL GLAZE 2.2K METAL GLAZE 330 METAL GLAZE 4.7K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W
R198 R199 R200 R201 R202	1-216-113-00 1-216-081-00 1-216-049-91 1-216-049-91 1-216-069-00	METAL GLAZE 4701 METAL GLAZE 22K METAL GLAZE 1K METAL GLAZE 1K METAL GLAZE 6.81	5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R1056 R1059 R1060 R1061 R1062	1-216-049-91 1-216-073-00 1-216-049-91 1-216-049-91 1-216-049-91	METAL GLAZE 1K METAL GLAZE 10K METAL GLAZE 1K METAL GLAZE 1K METAL GLAZE 1K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W
R203 R204 R205 R207 R208	1-216-069-00 1-216-049-91 1-216-037-00 1-216-039-00 1-216-039-00	METAL GLAZE 1K METAL GLAZE 330 METAL GLAZE 390 METAL GLAZE 390	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R1063 R1070 R1071 R1075 R1301	1-216-073-00 1-216-025-91 1-216-025-91 1-216-057-00 1-216-057-00	METAL GLAZE 10K METAL GLAZE 100 METAL GLAZE 100 METAL GLAZE 2.2K METAL GLAZE 2.2K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W
R213 R214 R215 R272 R311	1-216-025-91 1-216-025-91 1-216-025-91 1-216-295-91 1-216-095-00	METAL GLAZE 100 METAL GLAZE 100 METAL GLAZE 100 METAL GLAZE 0 METAL GLAZE 82K	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R1302 R1303 R1304 R1325 R1340	1-216-057-00 1-216-037-00 1-216-037-00 1-216-009-00 1-216-037-00	METAL GLAZE 2.2K METAL GLAZE 330 METAL GLAZE 330 METAL GLAZE 22 METAL GLAZE 330	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W
R312 R313 R314 R315 R317	1-216-077-00 1-216-025-91 1-216-033-00 1-216-065-00 1-216-065-00	METAL GLAZE 15K METAL GLAZE 100 METAL GLAZE 220 METAL GLAZE 4.71 METAL GLAZE 4.71		1/10W 1/10W 1/10W 1/10W 1/10W	R1341 R1342 R1344 R1401 R1402	1-216-017-91 1-216-017-91 1-216-037-00 1-216-095-00 1-216-077-00	METAL GLAZE 47 METAL GLAZE 47 METAL GLAZE 330 METAL GLAZE 82K METAL GLAZE 15K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W
R330 R331 R332 R333 R334	1-216-041-00 1-216-041-00 1-216-041-00 1-216-041-00 1-216-041-00	METAL GLAZE 470	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R1403 R1404 R1406 R1407 R1410	1-216-025-91 1-216-025-91 1-216-037-00 1-216-037-00 1-216-041-00	METAL GLAZE 100 METAL GLAZE 100 METAL GLAZE 330 METAL GLAZE 330 METAL GLAZE 470	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W
R335 R336 R337 R338 R340	1-216-041-00 1-216-041-00 1-216-041-00 1-216-041-00 1-216-025-91	METAL GLAZE 470 METAL GLAZE 470 METAL GLAZE 470 METAL GLAZE 470 METAL GLAZE 100	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R1411 R1412 R1413 R1414 R1415	1-216-041-00 1-216-041-00 1-216-041-00 1-216-041-00 1-216-041-00	METAL GLAZE 470	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W
R341 R342 R343 R345 R351	1-216-025-91 1-216-025-91 1-216-073-00 1-216-025-91 1-216-037-00		5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R1416 R1417 R1418 R1420 R1421	1-216-041-00 1-216-041-00 1-216-041-00 1-216-049-91 1-216-047-91	METAL GLAZE 470 METAL GLAZE 470 METAL GLAZE 470 METAL GLAZE 1K METAL GLAZE 820	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W
R352 R353 R374 R1001 R1011	1-216-049-91 1-216-041-00 1-216-049-91 1-216-049-91 1-216-295-91	METAL GLAZE 1K METAL GLAZE 470 METAL GLAZE 1K METAL GLAZE 1K METAL GLAZE 0	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R1422 R1423 R1424 R1425 R1426	1-216-051-00 1-216-045-00 1-216-049-91 1-216-047-91 1-216-025-91	METAL GLAZE 1.2K METAL GLAZE 680 METAL GLAZE 1K METAL GLAZE 820 METAL GLAZE 100	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W
R1012 R1030 R1033 R1034 R1036	1-216-041-00 1-216-073-00 1-216-295-91 1-216-073-00 1-216-049-91	METAL GLAZE 470 METAL GLAZE 10K METAL GLAZE 0 METAL GLAZE 10K METAL GLAZE 1K	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R1427 R1428 R1430 R1431 R1433	1-216-025-91 1-216-025-91 1-216-025-91 1-216-025-91 1-216-043-91	METAL GLAZE 100 METAL GLAZE 100 METAL GLAZE 100 METAL GLAZE 100 METAL GLAZE 560	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W
R1037	1-216-049-91	METAL GLAZE 1K	5%	1/10W	R1434	1-216-043-91	METAL GLAZE 560	5%	1/10W



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Ne les remplacer que par une piece portant le numero specifie.

<b>/</b> \									
REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	NC		REMARK
R1435 R1436 R1440 R1441	1-216-043-91 1-216-069-00 1-216-037-00 1-216-049-91	METAL GLAZE 560 5% METAL GLAZE 6.8K 5% METAL GLAZE 330 5% METAL GLAZE 1K 5%	1/10W 1/10W 1/10W 1/10W	C609 C610 C611	1-129-718-00 1-126-953-11 1-126-953-11	FILM ELECT ELECT	0.022MF 2200MF 2200MF	5% 20% 20%	630V 35V 35V
R1442 R1450 R1451 R1452	1-216-049-91 1-216-029-00 1-216-029-00 1-216-029-00	METAL GLAZE 1K 5% METAL GLAZE 150 5% METAL GLAZE 150 5% METAL GLAZE 150 5%	1/10W 1/10W 1/10W 1/10W	C612 C613 C614 C615 C616	1-124-903-11 1-128-548-11 1-128-548-11 1-110-626-11 1-164-625-11	ELECT ELECT	1MF 4700MF 4700MF 330MF 680PF	20% 20% 20% 20% 10%	50V 25V 25V 160V 500V
R1461 R1462 R1463 R2001 R2002 R2020	1-216-049-91 1-216-049-91 1-216-041-00 1-216-025-91 1-216-049-91 1-216-041-00	METAL GLAZE 470 5% METAL GLAZE 100 5%	1/10W 1/10W 1/10W 1/10W 1/10W 1/10W	C622	1-136-559-11 1-104-989-91 1-136-519-12 1-136-518-12 1-113-890-61	FILM FILM FILM	0.0047MF 0.0022MF 0.47MF 0.33MF 0.0022MF	10% 5% 20% 20% 20%	400V 200V 300V 300V 250V
R2021 R2022 R2023 R2024 R2025	1-216-073-00 1-216-057-00 1-216-063-91 1-216-049-91 1-216-025-91	METAL GLAZE 10K 5% METAL GLAZE 2.2K 5% METAL GLAZE 3.9K 5%	1/10W 1/10W 1/10W 1/10W 1/10W	C626 1 1/2 C627 C628 C629 C630	12 154 504 61 1-126-940-11 1-126-965-11 1-162-599-12 1-162-599-12	ELECT	330MF 22MF 0.0047MF 0.0047MF	20% 20% 20% 20%	25V 50V 250V 250V 250V
R2026 R2027 R2028 R2031 R2032	1-216-025-91 1-216-057-00 1-216-009-00 1-216-017-91 1-216-017-91	METAL GLAZE 100 5% METAL GLAZE 2.2K 5% METAL GLAZE 22 5% METAL GLAZE 47 5%	1/10W 1/10W 1/10W 1/10W 1/10W	C631 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1-161-964-91 1-125-555-11 1-136-165-00 1-136-165-00 1-126-964-11	ELECT FILM FILM	330MF 0.1MF 0.1MF 10MF	20% 5% 5% 20%	400V 50V 50V 50V
R2033 R2034 R2035 R2037 R2040	1-216-017-91 1-216-295-91 1-216-017-91 1-216-049-91 1-216-057-00	METAL GLAZE 0 5% METAL GLAZE 47 5%	1/10W 1/10W 1/10W 1/10W 1/10W	C648 C650 C651 C662 C663	1-101-001-00 1-126-964-11 1-136-171-00 1-124-563-11 1-126-964-11	FILM ELECT	0.001MF 10MF 0.33MF 2200MF 10MF	20% 5% 20% 20%	50V 50V 50V 25V 50V
R2041	1-216-025-91	METAL GLAZE 100 5%	1/10W	C664 C665	1-102-129-00 1-126-940-11	CERAMIC ELECT	0.01MF 330MF	10% 20%	50V 25V
	< TUN	IER >			< CON	NECTOR >			
TU101	1-693-340-11	TUNER (TUVIF) (AEP) (KV-29C3A/29C3D/29 TUNER (TUVIF) (FR) (KV- ADAPTOR, IEC ; TU101		CN0009 2 CN0701 CN0702	1-508-786-00 1-508-765-00 1-573-299-21 1-695-300-11	PIN, CONNECT CONNECTOR, B CONNECTOR, B	OR (SMM PLT) OARD TO BOAL OARD TO BOAL	OH) 3P RD 10P RD 20P	MWIII
	< CRY	STAL >			< DIO	DE >			
X200 X301 X302 X1001 X1401	1-567-505-11 1-567-504-11 1-760-551-21 1-567-505-11	VIBRATOR, CRYSTAL (18.4 OSCILLATOR, CRYSTAL (3. OSCILLATOR, CRYSTAL (4. VIBRATOR, CERAMIC (20.4 OSCILLATOR, CRYSTAL (3.	58MHz) 43MHz) 8MHz) 58MHz)	D601 D602 D603 D605 D607	8-719-510-53 8-719-991-33 8-719-109-89 8-719-047-31 8-719-510-12 4-382-854-11	DIODE 1SS133 DIODE RD5.6E DIODE RBA-40 DIODE D10SC4	T-77 SB2 2L M	n607	,
X1403		VIBRATOR, CERAMIC (20.4		D608	8-719-510-12	•		, 500.	
******	*******	*********	******	D609	4-382-854-11 8-719-047-31	SCREW (M3X10 DIODE RBA-40	), P, SW (+) 2L	; D608	1
	*A-1636-021-A	G BOARD, COMPLETE		D610 D611	8-719-312-39 8-719-510-64				
	*4-203-609-01	HOLDER, G		D614 D615	8-719-911-19 8-719-911-19				
	< CAP	PACITOR >		D616 D617	8-719-911-19 8-719-911-19				
C602 C603 C604 C605 C606	1-165-127-11 1-165-127-11 1-136-171-00 1-137-399-11 1-136-171-00	CERAMIC 470PF FILM 0.33MF FILM 0.1MF	10% 500V 10% 500V 5% 50V 5% 50V 5% 50V	D618 D619 D620 D621	8-719-911-19 8-719-911-19 8-719-911-19 8-719-911-19	DIODE 1SS119- DIODE 1SS119- DIODE 1SS119-	-25 -25 -25		
C607 C608	1-137-399-11 1-164-625-11	FILM 0.1MF	5% 50V 10% 500V	D622 D623	8-719-510-64 8-719-510-64	DIODE S2LA201	?		

The components identified by shading and marked  $\dot{r}_{\rm c}$  are critical for safety.

for safety.

Replace only with the part number specified.

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REF.NO.	PART NO.	DESCRIPTIO	N	REMARK	REF.NO.	PART NO.	DESCRIPTION	ON	REMARK
D625 D626 D627 D628 D630	8-719-911-19 8-719-911-19 8-719-911-19 8-719-911-19 8-719-991-33	DIODE 1SS119-	25 25 25		R619 114 R620	1-205-949-11 1-205-949-11 1-244-945-91 1-218-265-11	WIREWOUND CARBON METAL	11.8 5% 11.8 5% 11.6 5% 8.20 5%	
D633 D634 D636	8-719-991-33 8-719-991-33 8-719-511-40				R621 R622 R623 R624 R625	1-249-417-11 1-249-430-11 1-249-436-11 1-249-425-11 1-247-815-91	CARBON CARBON CARBON	1K 5% 12K 5% 39K 5% 4.7K 5% 220 5%	1/4W F 1/4W 1/4W 1/4W 1/4W
	< FE	RRITE BEAD >			R626	1-247-863-91	CARBON	22K 5%	1/4W
FB601 FB602 FB603 FB604	1-410-396-41 1-410-396-41	FERRITE BEAD FERRITE BEAD FERRITE BEAD FERRITE BEAD	INDUCTOR 0.4 INDUCTOR 0.4	5UH 5UH	R627 R628 R629 R636	1-247-815-91 1-247-807-31 1-249-428-11 1-207-905-00	CARBON CARBON CARBON	220 5% 100 5% 8.2K 5% 0.27 10%	1/4W 1/4W 1/4W 5 2W F
	< IC	>			R637	1-249-389-11		4.7 5%	1/4W F
IC601 IC602	1-810-051-11 1-81749-040-64 8-759-510-52	POWER MODULE PHOTO COUPLER IC TEA7605	DM-48 <b>PC123FV2</b>	All points    District	R639 R640 R641 R642	1-247-791-91 1-247-791-91 1-247-791-91 1-247-791-91	CARBON CARBON	22 5% 22 5% 22 5% 22 5%	1/4W 1/4W 1/4W 1/4W
	< CO	IL >			R651	1-215-880-00		10 5%	2W F
L605 L606	1-412-523-21 1-412-523-21	INDUCTOR	6.8UH 6.8UH		R652 R653 R654 R655	1-247-891-00 1-247-891-00 1-247-891-00 1-247-891-00	CARBON CARBON	330K 5% 330K 5% 330K 5% 330K 5%	1/4W 1/4W 1/4W 1/4W
	< TR	ANSFORMER >			R656	1-249-439-11		68K 5%	1/4W
<b>1.1602</b>	1 429-860-11 	i <b>transformer.</b> Link >	dine Picter	Actions of the control of the contro	R657 R658 R659 R660	1-249-429-11 1-249-421-11 1-249-425-11 1-249-429-11	CARBON CARBON	10K 5% 2.2K 5% 4.7K 5% 10K 5%	1/4W 1/4W 1/4W 1/4W
PS604	ri 1-801-550-21 ri 1-801-550-21 ri 1-801-550-21 ri 1-801-549-21	PROTECTOR MOI	OLE 2.5A/MP2	50	R661 R662 R663 R664	1-249-421-11 1-249-421-11 1-249-429-11 1-249-429-11	CARBON CARBON CARBON	2.2K 5% 2.2K 5% 10K 5% 10K 5%	1/4W 1/4W 1/4W 1/4W
	< TR	ANSISTOR >			R667	1-249-377-11	CARBON	0.47 5%	1/4W F
Q601 Q602	8-729-032-87 4-382-854-11 8-729-032-87	SCREW (M3X10) TRANSISTOR 25	, P, SW (+) SC4834NP-F09		R670	1-249-417-11 < RE	CARBON LAY >	1K 5%	1/4W
Q603	4-382-854-11 8-729-119-78			; Q602	RY601	1-755-167-11	RELAY, ÁC PÓ RELAY, ÁC PÓ	OR I I	
Q604	8-729-200-21				RY602 1 1/			WBR 1 1 11 11 11 11	
Q605 Q608	8-729-119-76 8-729-200-21						ANSFORMER >		
Q610 Q611 Q612	8-729-119-76 8-729-119-78 8-729-119-76		SC1740S-RT		<b>T60</b> 23342	1 -429 -844 -11 1 -429 -254 -11 1 -429 -952 -11	transformer, transformer, transformer	CONVERTER CONVERTER	(PIT)
Q615	8-729-200-21	TRANSISTOR 28	C2500-B				ERMISTOR >		
Q621	8-729-200-21	TRANSISTOR 25	SC2500-B		THP601	1-809-827-11	THERMISTOR, 3	POSITIVIS	
	< RE	SISTOR >			1,4,4	< VA	RISTOR >		
R601 R602	1-202-933-61 1-247-891-00	CARBON	0.1 10% 330K 5%	1/2W F 1/4W	VDR601		VARISTOR ERZV	V10D621	
R603 R604	1-247-891-00	CARBON METAL OXIDE	330K 5% 1 5%	1/4W 2W F	*****	******	******	******	*****
R605	1-247-891-00	CARBON	330K 5%	1/4W 1/4W		*A-1638-097-A	C BOARD, COM		
R607 R608	1-216-369-00 1-247-887-00	METAL OXIDE	1 5% 220K 5%	2W F 1/4W		4-382-854-11	SCREW (M3X10)	), P. SW (±	)
R609	1-249-429-11	CARBON	10K 5%	1/4W F				,, <u>-</u> , 50 (T	,
R610	1-249-419-11		1.5K 5%	1/4W F			PACITOR >	A AA.	A ****
R611	1-249-377-11	CARBON	0.47 5%	1/4W F	C3701	1-162-114-00	CERAMIC	0.0047MF	2KV



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REF.NO.	PART NO.	DESCRIP	TION		REMARK	REF.NO.	PART NO.	DESCRIPTIO	<u>N</u>			REMARK
C3703 C3712 C3713 C3714	1-107-662-11 1-102-978-00 1-102-978-00 1-102-978-00	ELECT CERAMIC CERAMIC CERAMIC	22MF 220PF 220PF 220PF	20% 5% 5% 5%	250V 50V 50V 50V	Q3717 Q3718	8-729-906-70 8-729-906-70 < RES	TRANSISTOR BETTANSISTOR BETTANSISTOR S				
C3716 C3720	1-128-528-11 1-162-116-00	CERAMIC	470MF 680PF	20% 10%	16V 2KV	R3701 R3702 R3703	1-202-884-11 1-202-884-11 1-202-549-00	SOLID SOLID	820K 820K 100	20% 20% 20%	1/2W 1/2W 1/2W	
	< CON	NECTOR >				R3705 R3706	1-216-377-00 1-216-377-00	METAL OXIDE METAL OXIDE	1 1	5% 5%	1W 1W	F F
CN3701 CN3703 CN3704	1-695-915-11 *1-564-512-11 *1-508-767-00	PLUG, CONN PIN, CONNE	ECTOR 9P	TCH) 5P		R3707 R3708 R3709 R3710	1-249-416-11 1-249-416-11 1-249-416-11 1-215-922-11	CARBON CARBON	820 820 820 6.8K	5% 5% 5% 5%	1/4W 1/4W 1/4W 3W	F
			225 55			R3711	1-202-549-00	SOLID	100	20%	1/2W	
D3701 D3702 D3703 D3704 D3705	8-719-991-33 8-719-991-33 8-719-991-33 8-719-991-33 8-719-991-33	DIODE 1SS1 DIODE 1SS1 DIODE 1SS1 DIODE 1SS1 DIODE 1SS1	33T-77 33T-77 33T-77 33T-77			R3712 R3713 R3714 R3715 R3716	1-215-922-11 1-202-549-00 1-215-922-11 1-202-549-00 1-249-405-11	METAL OXIDE SOLID METAL OXIDE SOLID CARBON	6.8K 100 6.8K 100 100	5% 20% 5% 20% 5%	3W 1/2W 3W 1/2W 1/4W	F F
D3706 D3707 D3708 D3709 D3710	8-719-991-33 8-719-991-33 8-719-991-33 8-719-991-33 8-719-908-03		.33T-77 .33T-77 .33T-77			R3717 R3718 R3721 R3723 R3725	1-249-405-11 1-249-405-11 1-247-885-00 1-247-885-00 1-249-419-11	CARBON CARBON CARBON	100 100 180K 180K 1.5K	5% 5% 5% 5%	1/4W 1/4W 1/4W 1/4W 1/4W	
D3711 D3712 D3713 D3714 D3715	8-719-901-83 8-719-901-83 8-719-901-83 8-719-991-33 8-719-018-82	DIODE 1SSE	3 3			R3726 R3727 R3728 R3729 R3730	1-249-419-11 1-249-419-11 1-247-815-91 1-247-815-91 1-247-815-91	CARBON CARBON CARBON	1.5K 1.5K 220 220 220	5% 5% 5% 5%	1/4W 1/4W 1/4W 1/4W 1/4W	
D3716 D3717 D3718 D3719	8-719-991-33 8-719-991-33 8-719-991-33 8-719-991-33	DIODE 1SS1 DIODE 1SS1	.33T-77 .33T-77			R3731 R3732 R3733 R3734	1-249-403-11 1-249-403-11 1-249-403-11 1-202-549-00	CARBON CARBON SOLID	68 68 68	5% 5% 5% 20%	1/4W 1/4W 1/4W 1/2W	
	< SOC	CKET >				R3735	1-247-885-00	CARBON	180K	5%	1/4W	
<b>08701</b> 11114	1-526÷990-21 < COI			A CASA CASA CASA CASA CASA CASA CASA CA	を できる	R3738 R3739 R3740	1-249-401-11 1-249-401-11 1-249-401-11	CARBON CARBON	47 47 47	5% 5% 5%	1/4W 1/4W 1/4W	
L3701 L3702	1-408-607-31 1-408-607-31	INDUCTOR	22UH 22UH			R3741 R3742	1-249-435-11 1-249-429-11		33K 10K 12K	5% 5%	1/4W 1/4W 1/4W	
L3703 L3704 L3705	1-408-409-00 1-408-607-31 1-408-409-00	INDUCTOR	10UH 22UH 10UH			R3743 R3747 R3748 R3749	1-249-430-11 1-216-437-00 1-247-885-00 1-216-437-00	METAL OXIDE CARBON	5.6K	5% 5% 5% 5%	1W 1W 1/4W 1W	F F
L3706 L3707 L3709	1-408-607-31 1-408-409-00 1-408-409-00	INDUCTOR	22UH 10UH 10UH			R3750 R3751	1-249-432-11 1-216-437-00	CARBON METAL OXIDE	18K 5.6K	5% 5%	1/4W 1W	F
	< TRA	ANSISTOR >				R3752 R3758	1-249-431-11 1-247-807-31	CARBON	15K 100	5% 5%	1/4W 1/4W	
Q3701	8-729-906-70	TRANSISTOF	BF871-127			R3759 R3760	1-247-807-31 1-247-807-31		100 100	5% 5%	1/4W 1/4W	
Q3702 Q3703 Q3704 Q3705	8-729-906-70 8-729-906-70 8-729-326-11 8-729-326-11	TRANSISTOF TRANSISTOF	2SC2611			R3761 R3762 R3763	1-249-418-11 1-249-418-11 1-249-418-11	CARBON	1.2K 1.2K 1.2K	5%	1/4W 1/4W 1/4W	
Q3706	8-729-326-11					!	< VAR	IABLE RESISTOF	. >			
Q3707 Q3708 Q3709 Q3710	8-729-200-17 8-729-200-17 8-729-200-17 8-729-119-78	TRANSISTOF TRANSISTOF	2SA1091-0 2SA1091-0 2SA1091-0 2SC2785-HFE			RV3701 RV3702		RES, ADJ, MET RES, ADJ, MET				
Q3711 Q3712 Q3716	8-729-119-78 8-729-119-78 8-729-906-70	TRANSISTOR	2SC2785-HFE 2SC2785-HFE BF871-127									

The components identified by shading and marked if are critical for safety.
Replace only with the part number

specified.

Les composants identifies par une trame et une marque i sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.



REF.NO.	PART NO.	DESCRIPTION			REMARK	REF.NO.	PART NO.	PART NO. DESCRIPTION		REMARK	
	*A-1640-246-A	D BOARD, CO ************* PACITOR >				C814 C816 C817 C819	1-129-702-00 1-109-961-11 1-136-759-11 1-137-104-11	FILM FILM FILM FILM	0.001MF 0.75MF 0.039MF 0.033MF	10% 5% 5% 10%	400V 400V 630V 250V
C101 C236 C237 C238 C241	1-126-965-11 1-136-165-00 1-136-165-00 1-126-967-11 1-126-967-11	FILM FILM ELECT	22MF 0.1MF 0.1MF 47MF 47MF	20% 5% 5% 20% 20%	50V 50V 50V 16V 16V	C822 C823 C824 C825 C827	1-126-967-11 1-102-129-00 1-162-117-00 1-126-964-11 1-102-228-00	ELECT CERAMIC CERAMIC ELECT CERAMIC	47MF 0.01MF 100PF 10MF 470PF	20% 10% 10% 20% 10%	50V 50V 500V 50V 500V
C242 C243 C244 C245 C260	1-126-953-11 1-136-165-00 1-126-953-11 1-136-165-00 1-126-964-11	ELECT FILM ELECT FILM ELECT	2200MF 0.1MF 2200MF 0.1MF 10MF	20% 5% 20% 5% 20%	35V 50V 35V 50V	C835 C836 C837 C838 C841	1-107-655-11 1-102-228-00 1-102-228-00 1-102-228-00 1-106-375-12	ELECT CERAMIC CERAMIC CERAMIC MYLAR	47MF 470PF 470PF 470PF 0.022MF	20% 10% 10% 10% 10%	250V 500V 500V 500V 250V
C261 C262 C263 C264 C265	1-126-964-11 1-104-665-11 1-136-165-00 1-126-933-11 1-136-165-00	ELECT	10MF 100MF 0.1MF 100MF 0.1MF	20% 20% 5% 20% 5%	50V 25V 50V 16V 50V	C842 C852 C854 C855 C856	1-106-357-00 1-126-968-11 1-102-129-00 1-126-941-11 1-102-129-00	MYLAR ELECT CERAMIC ELECT CERAMIC	0.0039MF 100MF 0.01MF 470MF 0.01MF	10% 20% 10% 20% 10%	400V 50V 50V 25V 50V
C266 C269 C270 C271 C272	1-104-665-11 1-126-967-11 1-136-165-00 1-126-965-11 1-136-165-00	ELECT	100MF 47MF 0.1MF 22MF 0.1MF	20% 20% 5% 20% 5%	-25V 16V 50V 50V 50V	C857 C860 C862 C866 C871	1-126-941-11 1-106-220-00 1-130-789-00 1-137-040-11 1-136-562-11	ELECT MYLAR FILM FILM MYLAR	470MF 0.1MF 1MF 0.0022MF 0.0082MF	20% 10% 5% 10% 20%	25V 100V 100V 400V 400V
C273 C274 C275 C276 C277	1-136-161-00 1-124-925-11 1-124-925-11 1-126-967-11 1-126-934-11	ELECT ELECT	0.047MF 2.2MF 2.2MF 47MF 220MF	5% 20% 20% 20% 20%	50V 50V 50V 16V 16V	C872 C873 C874 C878 C900	1-106-220-00 1-161-754-00 1-164-645-11 1-106-220-00 1-101-810-00	MYLAR CERAMIC CERAMIC MYLAR CERAMIC	0.1MF 0.001MF 1000PF 0.1MF 100PF	10% 10% 10% 10% 5%	100V 2KV 500V 100V 500V
C278 C279 C280 C281 C283	1-107-714-11 1-126-965-11 1-136-169-00 1-126-967-11 1-136-169-00	ELECT	10MF 22MF 0.22MF 47MF 0.22MF	20% 20% 5% 20% 5%	16V 50V 50V 16V 50V	C901 C902 C903 C905 C906	1-101-810-00 1-137-372-11 1-137-372-11 1-126-964-11 1-136-166-00	CERAMIC FILM FILM ELECT FILM	100PF 0.022MF 0.022MF 10MF 0.12MF	5% 5% 5% 20% 5%	500V 50V 50V 50V 50V
C620 C639 C652 C653 C654	1-126-967-11 1-126-964-11 1-136-171-00 1-104-661-91 1-104-664-11	ELECT FILM ELECT	47MF 10MF 0.33MF 330MF 47MF	20% 20% 5% 20% 20%	50V 50V 50V 16V 25V	C907 C908 C909 C1619 C1621	1-124-903-11 1-124-903-11 1-136-153-00 1-106-220-00 1-106-367-00	ELECT FILM MYLAR	1MF 1MF 0.01MF 0.1MF 0.01MF	20% 20% 5% 10% 10%	50V 50V 50V 100V 400V
C656 C657 C658 C659 C660	1-126-967-11 1-136-165-00 1-136-165-00 1-136-165-00 1-136-164-00	FILM FILM FILM	47MF 0.1MF 0.1MF 0.1MF 0.082MF	20% 5% 5% 5% 5%	16V 50V 50V 50V	C1628 C1629 C1632 C2701 C2702	1-136-244-11 1-130-481-00 1-136-203-11 1-126-964-11 1-104-664-11	FILM FILM ELECT	0.1MF 0.0068MF 0.01MF 10MF 47MF	5% 5% 10% 20% 20%	50V 50V 250V 50V 25V
C666 C667	1-104-661-91 1-136-165-00		330MF 0.1MF	20% 5%	16V 50V	C2706	1-102-820-00	CERAMIC	330PF	5%	50V
C668 C669	1-136-165-00 1-136-165-00	FILM	0.1MF 0.1MF 0.1MF	5% 5% 5%	50V 50V 50V	CN0001	< CON *1-564-520-11	NECTOR >	ጥበጽ 50		
C670 C671 C801 C802	1-136-165-00 1-136-165-00 1-123-024-21 1-136-207-11	FILM ELECT FILM	0.1MF 33MF 0.047MF	5% 10%	50V 160V 250V	CN0001 CN0002 CN0004 CN0005 CN0101	*1-568-878-51 1-568-878-51 1-695-915-11 *1-573-296-21	PIN, CONNECT PIN, CONNECT TAB (CONTACT	OR 3P OR 3P	RD 10P	
C804 C805	1-102-110-00 1-102-117-00		220PF 820PF	10% 10%	50V 50V	CN0102 CN0521	1-695-297-11 *1-508-767-00	PIN. CONNECT	OR (5MM PIT	CH) 5P	
C808 C809 C810 C811	1-162-116-00 1-162-116-00 1-136-558-11 1-111-229-11	CERAMIC FILM	680PF 680PF 0.0039MF 0.018MF	10% 10% 10% 3%	2KV 2KV 400V 2KV	CN0722 CN0723 CN0743	*1-580-844-11 *1-695-292-11 *1-564-596-11	PIN, CONNECT PIN, CONNECT PLUG, CONNEC	OR (POWER) OR (POWER) TOR 15P		A CONTRACTOR OF THE PROPERTY O
C812 C813	1-136-759-11 1-109-844-11	FILM	0.039MF 0.68MF	5% 5%	630V 400V	CN0745 CN0746 CN3133	1-695-298-11 *1-568-879-11 1-568-882-51	PIN, CONNECT	OR 4P	RD 40P	
					'						



The components identified by shading and marked  $\hat{r}$  are critical for safety.

Replace only with the part number specified.

Les composants identifies par une trame et une marque : sont critiques pour la securite.

Ne les remplacer que par une piece portant le numero specifie.

REF.NO	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
	< DIC	DDE >		IC603		IC LM2940T-8.0 SCREW (M3X10), P, SW	(L) . TC603
D101		DIODE MTZJ-33C		IC604	8-759-513-71		(+) , 10003
D236 D237 D238	8-719-911-19	DIODE 1SS119-25 DIODE 1SS119-25 DIODE 1SS119-25		IC606		IC LM78L12ACZ	
D239	8-719-911-19	DIODE 1SS119-25		IC607	8-759-513-71 4-202-373-01	IC PQ05RF21 SPRING, IC; IC607	·
D262 D264	8-719-911-19	DIODE 1SS119-25 DIODE 1SS119-25 DIODE 1SS119-25		IC801 IC802	8-759-103-93 8-759-192-71		
D276 D278 D279	8-719-911-19 8-719-911-19 8-719-911-19	DIODE 1SS119-25	<b>*</b> ".	IC900		RECEIVER HIC SBX1981-	-51
D280	8-719-911-19	DIODE 188119-25		IC901 IC2701	8-749-012-12 8-759-603-37		
D281 D282	8-719-911-19	DIODE 1SS119-25 DIODE 1SS119-25			< JAC	K >	
D612 D613		DIODE 1SS119-25 DIODE 1SS119-25		J900	1-764-606-11	JACK TERMINAL BLOCK, S 3P	
D631	8-719-911-19	DIODE 188119-25		J901	-568-678-11 < COI	•	
D632 D633		DIODE 1SS119-25 DIODE 1SS119-25					
D802	8-719-979-99 4-382-854-11	DIODE 1SS119-25 DIODE ERDO8M-15 SCREW (M3X10), P, SW (DIODE ESAD39M-06C	(+) ; D802	L602 L603	1-412-525-31 1-412-525-31	INDUCTOR 10UH	
D803	8-719-043-14	DIODE ESAD39M-06C		L801 L802		COIL, DUST CORE(PAC) COIL, DUST CORE(PAC)	
D804	4-382-854-11	DIODE ESAD39M-06C SCREW (M3X10), P, SW of DIODE ERC38-06	(+) ; D803	F803		COIL, DUST CORE (PAC)	
D805	8-719-908-03	DIODE GP08D		L806 L807	1-459-592-11 1-412-524-11	COIL (WITH CORE) (PMCINDUCTOR 8.2UH	2)
D806		DIODE GP08D		L811	1-459-104-00	COIL, WITH CORE 10MH	
D810 D811	8-719-302-43	DIODE EGP20G DIODE EL1Z	(+) ; D803	L813 L814		COIL, WITH CORE 10MH COIL, AIR CORE	
D812 D813	8-719-510-26 8-719-510-26	DIODE D1NL20 DIODE D1NL20		L815		FERRITE BEAD INDUCTOR	
D814	8-719-908-03	DIODE GP08D		L816 L820	1-408-947-00 1-410-397-21	INDUCTOR 2.2MME FERRITE BEAD INDUCTOR	
D815 D816	8-719-110-13 8-719-110-41	DIODE RD9.1ESB2 DIODE RD15ES-B2		L900 L901	1-408-409-00 1-408-409-00		
D817 D818	8-719-911-19	DIODE 1SS119-25 DIODE 1SS119-25		L902	1-249-417-11	CARBON 1K	5% 1/ <b>4</b> W
D819		DIODE 1SS119-25		L903 L1604	1-249-417-11		5% 1/4W
D871		DIODE 122113-72		TT002	1-459-075-00	COIL, DYNAMIC CONVERS	SION CHOKE
D873 D874	8-719-911-19	DIODE 1SS119-25 DIODE 1SS119-25		L1622		COIL, CHOKE 3.3MMH	
D901		DIODE SLA-570KT3F HOLDER, LED ; D901				NSISTOR >	
D1609	8-719-979-85	DIODE EGP20G		Q276 Q277		TRANSISTOR DTC144ESA- TRANSISTOR 2SA1175-H	
D1611 D2701	8-719-911-19	DIODE 1SS119-25 DIODE 1SS119-25		Q278 Q279		TRANSISTOR 2SC2785-HI TRANSISTOR 2SC2785-HI	
D2702		DIODE 1SS119-25		Q280	8-729-119-78	TRANSISTOR 2SC2785-H	?E
	< CO1	NNECTOR >		Q281 Q282		TRANSISTOR 2SC2785-HE TRANSISTOR 2SC2785-HE	
DY1	*1-580-798-11	CONNECTOR PIN (DY) 6P		Q606 Q607	8-729-119-78	TRANSISTOR 2SC2785-HE TRANSISTOR DTA144ESA	
	< FUS	SE >		Q613		TRANSISTOR DTC144ESA-	-TP
£601	1-532-505-41	puse Holdry Ruse : E601	olympiania sourcementa sylvanialista sylvanialista sylvanialista sylvanialista sylvanialista sylvanialista sylvanialista sylvanialista sylvanialista	Q614 Q616		TRANSISTOR DTA144ESA TRANSISTOR DTC144ESA-	-ТР
e a market	< IC			Q617 Q618 Q620		TRANSISTOR DTC114ESA- TRANSISTOR 2SA933S TRANSISTOR 2SC2785-HB	
IC236	8-759-190-89			0624		TRANSISTOR 2SC2785-HE	
T0160	4-202-710-01	SPRING, IC; IC236 SPACER, INSULATING; I	C236	Q801	8-729-119-80	TRANSISTOR 2SC2688-LF	
IC260 IC261	8-759-330-93 8-759-502-21	IC TDA7309 IC TDA2822M		Q802	4-200-399-01	TRANSISTOR 2SC3997CA SPACER, IC; Q802 SCREW (M3X10), P, SW	(+) : 0802
					7 20M 034 TT	TTIME (MINISTER)   E   DI	(-) / N=

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REMARK

REF.NO.	PART NO.	DESCRIPTION	_	REMARK	REF.NO.	PART NO.	DESCRIPTION	)N			REMARK
Q803 Q804 Q1610	8-729-039-68 4-202-373-01 8-729-039-68 8-729-119-78	TRANSISTOR IRF	2803 7620 22785-HFE		R635 R638 R644	1-215-926-00 1-249-425-11 1-249-425-11	CARBON CARBON	33K 4.7K 4.7K	5%	3W 1/4W 1/4W	F
Q1611 Q2701	8-729-017-06 8-729-119-78	TRANSISTOR 2SC			R645 R646 R647 R665	1-249-410-11 1-249-403-11 1-249-420-11 1-249-425-11	CARBON CARBON CARBON	270 68 1.8K 4.7K	5% 5% 5% 5%	1/4W 1/4W 1/4W 1/4W	
R236	< RES	CARBON	3.9K 5%	1/4W	R666 R676	1-249-413-11		470 47K	5% 5%	1/4W 1/4W	
R237 R239 R240 R244	1-249-417-11 1-249-424-11 1-249-417-11 1-249-413-11	CARBON CARBON CARBON	1K 5% 3.9K 5% 1K 5% 470 5%	1/4W 1/4W 1/4W 1/4W	R677 R678 R679 R802	1-249-437-11 1-249-421-11 1-247-815-91 1-215-916-00	CARBON CARBON CARBON	47K 2.2K 220 680	5% 5% 5% 5%	1/4W 1/4W 1/4W 3W	F
R245 R246 R247 R248 R249	1-249-430-11 1-249-430-11 1-249-413-11 1-249-425-11 1-216-357-00	CARBON CARBON CARBON	12K 5% 12K 5% 470 5% 4.7K 5% 4.7 5%	1/4W 1/4W 1/4W 1/4W 1W F	R803 R804 R805 R806 R807	1-215-916-00 1-215-916-00 1-215-923-00 1-249-411-11 1-247-843-11	METAL OXIDE	680 680 10K 330 3.3K	5% 5% 5% 5%	3W 3W 3W 1/4W 1/4W	F F F
R250 R251 R252 R260 R261	1-216-357-00 1-249-429-11 1-249-429-11 1-247-863-91 1-247-863-91	CARBON CARBON CARBON	4.7 5% 10K 5% 10K 5% 22K 5% 22K 5%	1W F 1/4W 1/4W 1/4W 1/4W	R808 R809 R810 R811 R817	1-216-385-11 1-215-880-00 1-215-914-11 1-216-434-11 1-202-972-61	METAL OXIDE METAL OXIDE METAL OXIDE	0.47 10 330 1.8K	5% 5% 5% 5%	3W 2W 3W 1W 1/4W	F F F
R262 R263 R264 R265 R266	1-249-421-11 1-249-421-11 1-212-857-00 1-249-389-11 1-249-389-11	CARBON FUSIBLE CARBON	2.2K 5% 2.2K 5% 10 5% 4.7 5% 4.7 5%	1/4W 1/4W 1/4W F 1/4W F 1/4W F	R818 R819 R820 R821 R823	1-249-377-11 1-249-377-11 1-214-907-00 1-249-428-11 1-249-420-11	CARBON METAL	0.47 0.47 56K 8.2K 1.8K	5% 5% 1% 5%	1/4W 1/4W 1/2W 1/4W 1/4W	
R267 R268 R269 R270 R271	1-247-815-91 1-247-815-91 1-249-415-11 1-249-415-11 1-247-742-11	CARBON CARBON CARBON	220 5% 220 5% 680 5% 680 5% 180 5%	1/4W 1/4W 1/4W 1/4W 1/2W F	R834 R835 R837 R842 R843	1-247-887-00 1-249-434-11 1-249-422-11 1-249-399-11 1-202-822-00	CARBON CARBON	220K 27K 2.7K 33 2.2K	5% 5% 5% 5% 20%	1/4W 1/4W 1/4W 1/4W 1/2W	F
R277 R278 R279 R280 R281	1-249-419-11 1-249-441-11 1-249-429-11 1-249-425-11 1-249-437-11	CARBON CARBON CARBON	1.5K 5% 100K 5% 10K 5% 4.7K 5% 47K 5%	1/4W 1/4W 1/4W 1/4W 1/4W	R844 R845 R846 R847 R848	1-249-424-11 1-247-881-00 1-249-422-11 1-249-437-11 1-249-425-11	CARBON CARBON CARBON	3.9K 120K 2.7K 47K 4.7K		1/4W 1/4W 1/4W 1/4W 1/4W	
R282 R283 R284 R285 R286	1-249-430-11 1-249-429-11 1-249-432-11 1-249-425-11 1-249-421-11	CARBON CARBON CARBON	12K 5% 10K 5% 18K 5% 4.7K 5% 2.2K 5%	1/4W 1/4W 1/4W 1/4W 1/4W	R849 R850 R851 R854 R855	1-249-429-11 1-249-389-11 1-216-394-00 1-249-436-11 1-249-417-11	CARBON METAL OXIDE CARBON	10K 4.7 2.7 39K 1K	5% 5% 5% 5% 5%	1/4W 1/4W 3W 1/4W 1/4W	F F
R287 R288 R289 R290 R291	1-249-412-11 1-249-421-11 1-249-421-11 1-247-807-31 1-249-421-11	CARBON CARBON CARBON	390 5% 2.2K 5% 2.2K 5% 100 5% 2.2K 5%	1/4W 1/4W 1/4W 1/4W	R857 R859 R860 R861 R862	1-202-822-00 1-249-432-11 1-247-843-11 1-249-417-11 1-249-383-11	CARBON CARBON CARBON	2.2K 18K 3.3K 1K 1.5	5%	1/2W 1/4W 1/4W 1/4W 1/4W	F
R292 R293 R294 R295 R296	1-249-429-11 1-249-429-11 1-249-429-11 1-247-885-00 1-247-885-00	CARBON CARBON CARBON	10K 5% 10K 5% 10K 5% 180K 5% 180K 5%	1/4W 1/4W 1/4W 1/4W	R863 R865 R866 R867 R868	1-216-475-11 1-249-436-11 1-249-432-11 1-216-389-11 1-249-418-11	CARBON CARBON METAL OXIDE	120 39K 18K 1	5% 5% 5% 5% 5%	3W 1/4W 1/4W 3W 1/4W	F F
R297 R298 R630 R631 R632	1-247-807-31 1-247-807-31 1-249-429-11 1-215-477-00 1-249-417-11	CARBON CARBON METAL	100 5% 100 5% 10K 5% 220K 1% 1K 5%	1/4W 1/4W 1/4W 1/4W 1/4W	R871 R872 R873 R875 R895	1-249-441-11 1-247-895-91 1-247-887-00 1-247-843-11 1-215-866-11	CARBON CARBON CARBON	100K 470K 220K 3.3K 330	5%	1/4W 1/4W 1/4W 1/4W 1W	F
R633 R634	1-249-429-11 1-247-895-91		10K 5% 470K 5%	1/4W 1/4W	R900 R901	1-247-815-91 1-249-417-11		220 1K	5% 5%	1/4W 1/4W	



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Replace only with the part number specified.

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Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION	<u>N</u>		REMARK	REF.NO.	PART NO.	DESCRIPTION	<u>DN</u>		REMARK
R902 R908 R909	1-249-417-11 1-249-401-11 1-249-437-11 1-249-437-11	CARBON CARBON	1K 47 47K 47K	5% 1/41 5% 1/41 5% 1/41 5% 1/41	A A	C1714 C1715 C1716 C1718 C1719	1-136-203-11 1-163-001-11 1-124-907-11 1-124-120-11 1-124-907-11	CERAMIC CHIP ELECT ELECT	0.01MF 220PF 10MF 220MF 10MF	10% 10% 20% 20% 20%	250V 50V 50V 16V 50V
R910 R911 R912 R913 R914	1-249-425-11 1-249-421-11 1-249-425-11 1-249-421-11	CARBON CARBON CARBON	4.7K 2.2K 4.7K	5% 1/41 5% 1/41 5% 1/41 5% 1/41	A A A	C1722 C1723 C1724	1-101-810-00 1-104-396-11 1-101-810-00	CERAMIC ELECT	100PF 10MF 100PF	5% 20% 5%	500V 16V 500V
R916	1-247-807-31		100	5% 1/4			< CON	NECTOR >			
R917 R922 R923 R925	1-259-880-11 1-249-406-11 1-249-406-11 1-249-429-11	CARBON CARBON	2.2M 120 120 10K	5% 1/4% 5% 1/4% 5% 1/4% 5% 1/4%	N N	CN1701 CN1830	1-774-418-11 *1-564-510-11	PLUG, CONNEC		ARD 8P	
R926	1-249-429-11		10K	5% 1/4			< DIC				
R1641 R1645 R1646 R1648	1-247-863-91 1-249-439-11 1-249-421-11 1-215-875-11	CARBON CARBON	10K	5% 1/47 5% 1/47 5% 1/47 5% 1W	N N F	D1701 D1702 D1704 D1705 D1706	8-719-914-42	DIODE MTZJ-3	9C 9C		
R1649 R1650 R1651 R1652 R2701	1-249-429-11 1-249-429-11 1-249-399-11 1-249-421-11 1-247-863-91	CARBON CARBON CARBON	10K 10K 33 2.2K 22K	5% 1/47 5% 1/47 5% 1/47 5% 1/47 5% 1/47	N N F N	D1708 D1709		DIODE DA204K DIODE DA204K			
R2701	1-247-863-91		22K	5% 1/4		L1702	1-408-410-00		12UH		
R2702 R2703 R2704	1-247-863-91 1-247-863-91	CARBON	22K 22K 22K	5% 1/4% 5% 1/4%	N	1702		NSISTOR >	12011		
R2705	1-249-429-11	CARBON	10K	5% 1/47	W	01701			R100		
R2706 R2708 R2719	1-249-429-11 1-249-429-11 1-212-857-00	CARBON	10K 10K 10	5% 1/47 5% 1/47 5% 1/47	vī	Q1701 Q1702 Q1703	8-729-216-22 8-729-017-05 4-382-854-11	TRANSISTOR 2: SCREW (M3X10	SA1162-G SA1837 ), P, SW (+	·) ; Q17	03
	< SWI	TCH >				Q1704	8-729-920-74	TRANSISTOR 2	SC2412K-QR		
\$601	1-692-979-11	SWITCH, PUSH SWITCH, TACT SWITCH, TACT SWITCH, TACT	ILE ILE	<b>(CR)</b> \$ \$ \$ \$ \$		Q1705 Q1706 Q1707 Q1708	8-729-017-06 4-382-854-11 8-729-920-74 8-729-920-74 8-729-901-59	TRANSISTOR 2:	), P, SW (+ SC2412K-QR SC2412K-QR	-) ; Q17	05
	< TRA	ANSFORMER >				Q1710 01711	8-729-216-22 8-729-039-27				
Т801 Т803		TRANSFORMER,				Q1711 Q1712	8-729-039-25				
T804 T805	1-426-940-11	HLT			1 2 4 7 8 1 2 2 2		< RES	ISTOR >			
				i i i i (NX)	1003/U2B4)	JR1701 JR1702	1-216-296-91 1-216-296-91		0 5% 0 5%	1/8W 1/8W	
Т806		TRANSFORMER,				R1701	1-216-025-91		100 5%	1/10	
******	**************************************		MPLETE	*****	******	R1702 R1703 R1704 R1705	1-249-413-11 1-216-174-00 1-249-418-11 1-247-736-11	METAL GLAZE CARBON	470 5% 100 5% 1.2K 5% 56 5%	1/4W 1/8W 1/4W 1/2W	
	< CAF	PACITOR >				R1706 R1707	1-249-414-11 1-249-411-11		560 5% 330 5%	1/4W 1/4W	
C1701 C1704 C1706 C1707	1-104-119-00 1-161-830-00 1-107-638-11	CERAMIC ELECT	330MF 0.0047M 33MF	20% 4F 20% 20%	16V 500V 160V 50V	R1709 R1711 R1712	1-249-412-11 1-249-432-11 1-216-085-00	CARBON CARBON	390 5% 18K 5% 33K 5%	1/4W 1/4W 1/10	
C1708		CERAMIC CHIP		?	50V	R1713 R1714	1-216-083-00 1-216-073-00	METAL GLAZE	27K 5% 10K 5%	1/10 1/10	W
C1709 C1710 C1711	1-129-702-00 1-136-203-11 1-162-318-11	FILM CERAMIC	0.001MF 0.01MF 0.001MF	10% 7 10%	630V 250V 500V	R1715 R1716 R1717	1-215-866-11 1-249-417-11 1-249-432-11	CARBON	330 5% 1K 5% 18K 5%	1W 1/4W 1/4W	
C1712 C1713	1-107-667-11 1-162-318-11		2.2MF 0.001MF	20% 7 10%	160V 500V	R1718	1-249-412-11	CARBON	390 5%	1/4W	

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REF.NO.	PART NO.	DESCRIPTION			REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R1719 R1720	1-249-416-11 1-216-089-91	CARBON METAL GLAZE	820 47K	5% 5%	1/4W 1/10W			CELLANEOUS	
R1721	1-249-414-11	CARBON	560	5%	1/4W	!			
R1723	1-249-414-11	CARBON	10K	5%	1/4W 1/4W	144 8 2 7 4 4	1.1.1.60.65 (0.07) 3.3	· Idaté - indomination	Partenan arrantenan arrantenan arrantenan arrantenan arrantenan arrantenan arrantenan arrantenan arrantenan arr
K1/23	1-247-427-11	CARBON	TOV	26	1/4W	1838 B		COIL, DEGAUSSING	
D1704	1 116 600 11	WOMAL GLAGO	2077	Fo.	1 /1 014		1-452-032-00		
R1724	1-216-689-11	METAL GLAZE	39K	5%	1/10W	# T # 4 2 5 5 5 4	1-452-094-00		DISK; 15MM Ø
R1725	1-249-413-11	CARBON	470	5%	1/4W		1-453-222-11		
R1726	1-216-035-00	METAL GLAZE	270	5%	1/10W		146411241446		(NX-4003/U2B4)
R1727	1-249-402-11	CARBON	56	5%	1/4W F				
R1730	1-216-121-91	METAL GLAZE	1M	5%	1/10W		1-504-146-11	SPEAKER (5X11CM)	
						1111111	1-251-317-31	CAP ASSY, High-vol	MAGEL 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
R1731	1-216-049-91	METAL GLAZE	1K	5%	1/10W		1-571-433-21	SWITCH PUSE (AC P	TACE OWER)
R1736	1-247-807-31	CARBON	100	5%	1/4W		1-693-338-11		
R1737	1-216-075-00	METAL GLAZE	12K	5%	1/10W		- *** ***	, , , , , , , , , , , , , , , , , , , ,	, 3D/29C3E/29C3K/29C3R)
R1738	1-216-174-00	METAL GLAZE	100	5%	1/8W		1-693-340-11		
R1739	1-216-222-00	METAL GLAZE	10K	5%	1/8W		1 055 540 11	IONER (IOVII) (IR)	(NV Z)C3D)
112755	1 210 222 00		1011	3.0	1/011	13353594	1-751-680-11	CORD, POWER (WITH	violet is a minimum to a second
R1740	1-216-174-00	METAL GLAZE	100	5%	1/8W	- 一直を発見る	TEAUTE DON-TI	COND, FOREN WILL	MOTOR's Trickels.
R1741	1-216-174-00	METAL GLAZE	47	5%			b ura arr 44	2.5A/250V DEFLECTION YORE (Y	
					1/8W	1 1 1 1 1	8-451-466-11	DESIDECATION FORE (A	ZYGXCZH):
R1743	1-216-021-00	METAL GLAZE	68	5%	1/10W		8-453-005-21		
R1744	1-216-150-91	METAL GLAZE	10	5%	1/8W	V901 /	8+733-856-05	PICTURE TUBE (SD-2	69) (M68LCT60X)
R1745	1-216-150-91	METAL GLAZE	10	5%	1/8W				
						******	*******	******	********
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## ACCESSORIES AND PACKING MATERIALS

*4-203-485-11	CUSHION (LOWER) (ASSY)
*4-203-486-01	CUSHION (UPPER) (ASSY)
*4-203-487-01	INDIVIDUAL CARTON
4-203-639-41	MANUAL, INSTRUCTION (KV-29C3A) (ITALIAN)
4-203-639-51	MANUAL, INSTRUCTION (KV-29C3B)
	(FRENCH/GERMAN/ITALIAN/DUTCH)
4-203-639-11	MANUAL, INSTRUCTION (KV-29C3D)
	(GERMAN/ENGLISH/DUTCH)
4-203-639-71	MANUAL, INSTRUCTION (KV-29C3E) (SPANISH)
4-203-639-81	MANUAL, INSTRUCTION (KV-29C3E)
	(PORTUGUESE/DANISH/SWEDISH/NORWEGIAN/FINNISH)
4-203-639-91	MANUAL, INSTRUCTION (KV-29C3K/29C3R)
*4-395-957-01	BAG, PROTECTION

## REMOTE COMMANDER

1-473-692-11 COMMANDER, STANDARD TYPE (RM-862)

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